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Mixed Methods and Cross Disciplinary Research

Towards Cultivating Eco-systemic Living

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Leaves and organic matter at Mount Lofty, Adelaide, South Australia, McIntyre-Mills, J, Sept, 2017

Melting ice flows near Casey Station in the Antarctic on 30 January 2018 taken by Michael Rook from a Qantas route to South Africa

Transcript of Key Note Address on Mixed Methods and Transformative Approaches to Social and Environmental Justice

Sharlene Hesse-Biber
Boston College, Boston, MA, USA

MMIRA Regional Meeting
Flinders, Australia
Keynote Presentation
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Hesse Biber Podcast, Flinders (2).mp4

Interviewer: Hello, everyone. I have here with me Dr. Sharlene Hesse-Biber; she is a Professor of Sociology and the Co-director of the Women and Gender Studies Department at Boston College. Today, I will ask her a few questions about her vision for using mixed methods to shed light on transformative approaches to social and environmental justice.

SHB: Thanks. It's my pleasure to speak with everyone today at this symposium, and I'm really sorry I can't be with you today. But I consider it an honor that you have given me the opportunity to speak here in this podcast.

Interviewer: Dr. Hesse-Biber, could you share a little about your career in mixed methods at this point?

SHB: Yes. I was thinking about this, and actually, I was doing mixed methods as a grad student at the University of Michigan. In a study that I did of white attitudes towards black people in their neighborhood based on an open housing petition, if we knocked on their door a week later and asked them if they would sign this petition. And at the time, I thought that using these methods was incredible. So we could get at different kinds of questions. And I want to fast-forward that today to the more formalized approach to mixed methods, where we think very much in terms of designs. One of these methods is a qualitative approach, and with it another quantitative approach, in a sequential or a concurrent way. And it seemed to me that we were getting really caught up in design-centric understanding of the problem. The design first and sort of the problem, followed later. And my thinking was, we're

putting the cart before the horse. And I really was very concerned about that. And my thinking, really, is that we need to get away from this method-centric approach and really begin to think about centering the problem or set of problems in mixed methods, research inquiry. And if we step back from a focus on methods and we really turn towards, what is it that we want to know? What is the set of issues that are front and center for this research project? And my philosophy, Sara, is that I want to use any method I can to help me get out the question or set of questions. But also in focusing on problem-centered, what I call the context of discovery of a research process, is to understand that we are asking the questions that need to be asked. That we're asking questions across a variety of different stakeholder's concerns. And this is especially true when we're dealing with complex environmental issues. Whose problems are at the table? And whose problems are subjugated? And my concern is that we rush towards the method thinking that's our magic elixir; that's what's going to get us the answers to these problems. And we really, really don't try hard to get at subjugated knowledge of those people. For example, in the environmental research and environmental social justice, the most marginalized are impacted, yet their problems, their issues don't ever seem to make it to the stakeholder table. So, those are the kinds of things I think that are driving my current interest in mixed methods. I've been in this field for at least 15 years, and I see over and over again that individuals whose problems are central get left out. So, in thinking about this symposium today, I really feel that we're getting at those stakeholders. We're getting at those issues that also involve crossing borders, as I will speak about later, crossing disciplines.

Interviewer: So, how did your approach to mixed methods align with the values of social and environmental justice which this symposium is centered on today?

SBH: Well, my concern is that we're facing such difficult environmental issues, and issues around the environment that marginalize and subjugate the voices of those so impacted by environmental problems: women, children, and other marginalized populations. And so, my goal really is to get at, to bring these voices back into our understanding and the ways in which we need to begin to transform the environment towards social justice issues. And for me, the most important thing in centering the concerns and issues of those that are most impacted. And what I would call the standpoint approach. This involves asking a different set of multiple questions. So again, asking and putting those most impacted at the center of our understanding of environmental justice really requires us to ask a different set of issues to bring these individuals to the table of research, and begin where they're at. And I really feel, by focusing and problematizing first, we can better meet the needs of those most impacted.

Interviewer: So again, you emphasized this problem-centered approach to mixed methods research design, particularly for understanding these kinds of complex social justice issues. Could you talk a little bit more about why you feel it is important to center the research problem?

SHB: Well, as I said, I think we get caught up in noting that mixed methods is better than any other way of doing things; two is better than one. And really, my concern is that the problem gets lost. If we are talking about, you know, deep and complex environmental problems, we're asking many different types of questions that span many different disciplines. And my concern is how do we begin to center the problem and then talk about crossing problematic borders. I mean environmentalists have a set of problems; geographers have another set of problems; those impacted yet have another set of issues, and questions, and problems. So how can we begin to bring all of these stakeholders to the table to figure out and sort out the range of issues and problems out there? And how can we begin to cross borders and find ways of addressing these complex issues through cross-border work, through interdisciplinary research? These are the kinds of things we need to focus on, and the methods will really follow. We may use many different methods. We may use design templates nobody ever knew about. But still, we're doing it and the service of the range of questions. And while we cross questions, we also cross paradigmatic borders. Qualitative approaches will ask about lived experience. Quantitatively driven approaches will ask how much, how many, will do more hypothesis testing. And it's not that one is better the other, but in combination, we're weaving these issues together and trying to understand these wicked problems that are out there with regard to the environment.

Interviewer: Thank you. Could you share some insights on weaving multiple methods into research?

SHB: Right. I think there's been a lot of emphasis on integrating mixed methods, and I'm really not sure what we mean by that. I like to think of us taking a kind of mixed model approach where we have a set of questions that are talking to one another. Really, we're weaving a tale of how to figure out what's happening out in the environment, how to get all those stakeholders together. It's not kind of melding things together, but weaving and talking. This idea of weaving voices together not so much in competition with one another but with the goal of complex understanding of meaning. I also like the idea of crossing boundaries; weaving and crossing borders is a way to get at the range of issues out there and to try to understand complex ways of dealing with these issues. So, the kind of weaving approach seemed to me that we're weaving a text; we're weaving a beautifully colored set of issues that are not just a one-size-fits-all solution. At the local level, there are so many differing issues and problems that we need to privilege this kind of weaving and bobbing of problems and finding solutions that are multiple at different levels, at the micro-level, at the meso-level, and at the macro-level. And so, it's not so much triangulating necessarily but expanding our understanding the complexities that are out there. So, this metaphor of weaving or crossing borders, to me, is the beginning of trying to understand and get at some of the issues this symposium today and for the rest of the time in both Flinders and in West Java that we're trying to get at in general.

Interviewer: So, you mentioned with an interdisciplinary approach to mixed methods research. Why do you feel this is important, in particular, with topics of social and environmental justice?

SHB: Well, the environment is a complex whole. And it's both biotic and abiotic environment; there are many actors in this environment that need to be brought to the table; there are many disciplines as I mentioned before. We have geographers, we've got folks in sociology, we've got folks that are environmentalists, and each has a set of questions that is very much based in their own disciplinary silo. And if we're going to really get at the full range of issues and questions, we really need to break out of the silo thinking, and we need to begin to listen to each other's set of issues, concerns, and problems. Trying to cross disciplinary borders is very hard. And so, I think learning first how to communicate with each other before we start setting up designs and trying to get at findings, we want to make sure that we are clear where each other is coming from, what we can contribute, and what we really need to do is listen to each other's differences. Crossing borders is not easy, and I think there's a lot of need to understand how we do interdisciplinary work rather than talking past one another. We still have a lot of work to do in communicating the problems that we're bringing to the table and making sure we look at a different set of issues at all these levels, the microlevel, meso, and macro-level. And mixed methods has a role to play, but if we focus just on design or we focus on the fact that mixed methods is this magical elixir, this fairy dust, that we sprinkle on and something wonderful is going to happen, then I think we lose our way. And I think it's hard, we always want to rush to do the analysis. But if we don't have the right set of questions at the table, you could have a great design, but in the end, it's not going to help you.

Interviewer: Thank you, so we are coming to the end of our time here. I wonder if you have any final thoughts moving forward with the symposium today?

SHB: Well, I am excited that the organizers have brought together some of the most unbelievable folks, who together, I think, share a vision of complexity. And at all the levels, I think they share the vision of listening to the other. They are intersectional, they understand that multiple players are impacted, and they understand the importance of bringing people together in a shared interdisciplinary community of listening to each other. I just want to say thank you again for giving me the opportunity to speak today. I hope all of you enjoy the rest of this symposium.

Preface: Transformative Mixed Methods in Troubling Times

Donna M. Mertens
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The world is facing many challenges that are occurring at the nexus of social, environmental, and social justice. In this chapter, I explore the transformative approach to research as one avenue for contributing to an agenda for action based on systematically collected evidence and appropriate inclusion of a broad range of stakeholders in the research process and use for addressing wicked problems. The term wicked problems is attributed to Rittel and Webber (1973) who described them as problems that involve multiple interactive systems and about which there is no certainty about the solutions. Levin et al. (2012) added the idea that wicked problems are those for which time is running out to find a solution. Examples of wicked problems include climate change, water security, access to agricultural land, sovereignty and self-determination, poverty, and violence.

Although there are some deniers of climate change, the preponderance of the evidence supports the findings of the US Global Change Research Program in its *Climate Science Special Report* in which it concludes that "it is extremely likely that human activities, especially emissions of greenhouse gases, are the dominant cause of the observed warming since the mid-20th century (2017: 10)." They based this conclusion on the review of thousands of studies conducted worldwide that documented "changes in surface, atmospheric, and oceanic temperatures; melting glaciers; diminishing snow cover; shrinking sea ice; rising sea levels; ocean acidification; and increasing atmospheric water vapor (p. 10)." Yet, even with this large body of research-based evidence, we witness the continuation of practices that are destructive to the environment—often times, in the name of economic development and job creation.

Despite the seemingly intractable nature of wicked problems, I argue that there is reason for optimism. My argument centers on the hypothesis that the adoption of a transformative stance with the incorporation of mixed methods research increases the potential for addressing critical social, economic, and environmental injustices (Mertens 2014a). My argument is based on the following characteristics associated with a transformative mixed methods approach: the use of a transformative mixed methods approach provides an opportunity to strengthen the credibility of findings because the evidence is collected from multiple sources in multiple ways, thus being

able to reflect the complexity of the phenomenon being studied. As I explain in greater detail later in this chapter, a transformative stance requires the researcher to adopt a critical cultural perspective that is reflective of a conscious awareness of differing cultural perspectives and includes the full range of stakeholders in culturally appropriate ways.

It also has an orientation toward constructive action both as a result of engaging in the process of research and in the use of the findings from that research (Mertens 2015; Mertens and Wilson 2019).

The Meaning of Transformation

Transformation is multileveled; it can be both personal and social (Mertens 2017). Personal transformative moments can influence us to recognize inequities and commit to societal transformation. The meaning of transformation itself is important within the context of each research study. It helps us determine: What is accepted as the reality of transformation? This question has different answers depending on who you ask.

In Walton's (2014) description of my work and those of other transformative methodologists, she claims:

> These writers are seeing transformative research as a means of achieving change at a community and institutional level. However, transformation can also take place on a personal level; and indeed the argument can be made that transformation at any level has to begin with transformation of the individual. (p. 30)

We see an emphasis on transformation of the individual in studies such as those conducted by Pratt and Peat (2014) that focuses on the transformation of a student and thesis supervisor or by Farren et al. (2015) in which they studied the transformation of teachers through the use of information and communications technology in a second language classroom. Jones (2015) described transformation in the lives of disenfranchised youth so they can transform their lives from being victims of neglect and abuse to one where they are able to flourish as a trusting young person with a positive sense of identity and self-esteem. These transformations focus on the individual level while at the same time having wider social implications.

When Indigenous people are asked about transformation, they describe the need for decolonization in terms of research methods, as well as in the form of the return of their land, resources, and freedoms that were taken from them (Cram and Mertens 2015). This is a transformation that is clearly focused at the societal level, but Indigenous people emphasize that such a transformation needs to come through building relationships among themselves and with non-Indigenous people.

However, the transformative paradigm had its impetus from concerns raised about research by members of marginalized communities who saw a great deal of research being done "on" them, yet they noted that "little has changed in the quality of the lives of people who are poor and/or discriminated against based on racial

groupings/ethnicity, disability, deafness, gender, Indigeneity and other relevant dimensions of diversity" (Cram and Mertens 2015: 94) (cited in Mertens 2018: 21). Thus, the transformative approach to research involves a synergistic relationship between personal and social transformation.

The Transformative Paradigm

The transformative paradigm is one of the major philosophical frameworks for social science research and is based on the work of Guba and Lincoln (1989) and their development of the idea of paradigms in the social sciences being characterized by four primary sets of assumptions: axiological (value and ethics), ontological (the nature of reality), epistemological (the nature of knowledge and the relationship between the researcher and the participants or stakeholders), and methodological (the nature of systematic inquiry).

The transformative paradigm offers a metaphysical umbrella that brings together philosophical strands associated with feminism, critical theory, Indigenous and postcolonial theories, as well as disability and deafness rights theories. "The transformative paradigm is applicable to people who experience discrimination and oppression on whatever basis, including (but not limited to) race/ethnicity, disability, immigrant status, political conflicts, sexual orientation, poverty, gender, age, or the multitude of other characteristics that are associated with less access to social justice. In addition, the transformative paradigm is applicable to the study of the power structures that perpetuate social inequities (Mertens 2009: 4)."

Figure 1 provides a brief summary of the four assumptions as they are defined in the transformative paradigm.

Assumptions	Beliefs
Axiology	Cultural respect; promote social, environmental and economic justice & human rights; address inequities; reciprocity; resilience; interconnectedness (living and nonliving); relationships; we are the land
Ontology	Multi-faceted; consequences of privilege; historically situated
Epistemology	Interactive; trust; coalition building
Methodology	Transformative, dialogic, culturally responsive, mixed methods; policy change

Fig. 1 Summary of the transformative philosophical assumptions

Transformative Axiological Assumption

The transformative axiological assumption has been informed by the scholarship of social rights advocates as well as Indigenous people (Chilisa 2012; Cram and Mertens 2015; McIntyre-Mills et al. 2017; Romm 2018). The contribution of Indigenous researchers is particularly germane when looking at wicked problems that bring together the idea that "we are the land" and the implications for social, environmental, and economic justice. One example of a spiritual value from the African Indigenous community is Ubuntu, described by Chilisa (2012) as follows: Ubuntu calls upon researchers to conduct their studies with an awareness of the effects of the research on all living and nonliving things—those that come before us, those who are with us now, and those who will come in the future. With this as a guiding ethical principle, how would researchers change the way they design and conduct their research? What does this ethical imperative imply for our research methods if we want to insure that we not only address personal transformation but also contribute to action for transformative purposes at the societal level?

Transformative Ontological Assumption

The transformative paradigm holds that there are many different versions of reality and that these versions come from different social positionalities. The researcher is responsible for making visible the different versions of reality and providing evidence related to the consequences of accepting one version of reality over another. Examples of different versions of reality associated with different positions of power can be found in many sectors. In Australia and Indonesia, examples come from mining and palm oil production. Indigenous people see these topics as issues that are salient in terms of land rights, prevention of pollution, protection of the coral reef and other waterways, loss of agricultural land, need to protect the forests, water security, well-being, and the need to reduce the gap between rich and poor. However, government officials and corporate interests see these topics as being connected to job creation, energy production, economic growth, and profits (Wardill 2017). There are consequences of accepting one version of the reality over the other in terms of respect for human rights and protection of the environment. These different versions of reality are associated with different levels of power, and this is relevant to the transformative epistemological assumption.

Transformative Epistemological Assumption

The transformative epistemological assumption is informed by the axiological assumption that we are all interconnected and we have a responsibility to all living and nonliving things, as well as to the consequences of power inequities. It means

Epistemology: Building Coalitions Papua New Guinea Mining

- 1967: Soeharto government signed contract with Freeport McMoRan
- Freeport's power: economic growth, job creation, taxes paid to Indonesia
- Indigenous people protested; workers went out on strike
- UN Declaration on the Rights of Indigenous People
- UN Norms on the Responsibilities of Transnational Corporations and other Business Enterprises with Regard to Human Rights
- Formalized into organizations, such as LEMASA (Amungme Tribe Council) and LEMASKO (Kamoro Tribe Council) (Soares 2004). They also forged alliances with other indigenous communities in Aliansi Masyarakat Adat Nusantara (Alliance of Indigenous Peoples of the Archipelago)
- UN Working Group on Indigenous Populations; worked with Australian Council for Overseas Aid; Established an office in Port Vila to coordinate efforts
- Lawsuit against Freeport for cultural genocide
- Freeport: Social, employment and Human Rights Policy and internal code of conduct principles; International Congress and Convention Association audit compliance; Voluntary Principles on Security and Human Rights with NGOs; signed ISO14001 environmental standards; audit PT.SGS International
- Established 1% Trust Fund; Amungme and Kamoro granted Land Rights Trust Fund – share in the mine; August 2017 – transfer majority share to Indonesia

Fig. 2 Transformative epistemology and the building of coalitions (Anonymous 2017)

that researchers need to establish an interactive link between themselves and the stakeholders that are based on cultural respect and addressing power inequities. It leads to the need to build effective coalitions. This is exemplified in the approach used in addressing the Adani Mine situation in Papua New Guinea. The chronology of events is presented in Fig. 2.

Transformative Methodology

Transformative methodology generally involves the use of mixed methods, i.e., the use of both quantitative and qualitative methods in a single study in order to capture the full complexity of a phenomenon. Mixed methods are used to address power differentials in the stakeholder groups by providing multiple avenues for data collection that are culturally responsive. They are used to consciously give voice to the less powerful while making visible the contrasts between versions of reality as put forth between the less and the more powerful. It involves the development of cyclical, culturally responsive design that allows for appropriate engagement of multiple stakeholder groups. A major component at the beginning of a transformative mixed methods study is allowing for time to develop relationships, build coalitions, and design strategies for working together. One of the early data collection phases involves the conduct of a contextual analysis, determining levels of incidence of the problem, available data on the nature of the problem, and differences in experiences of the problem by various constituencies.
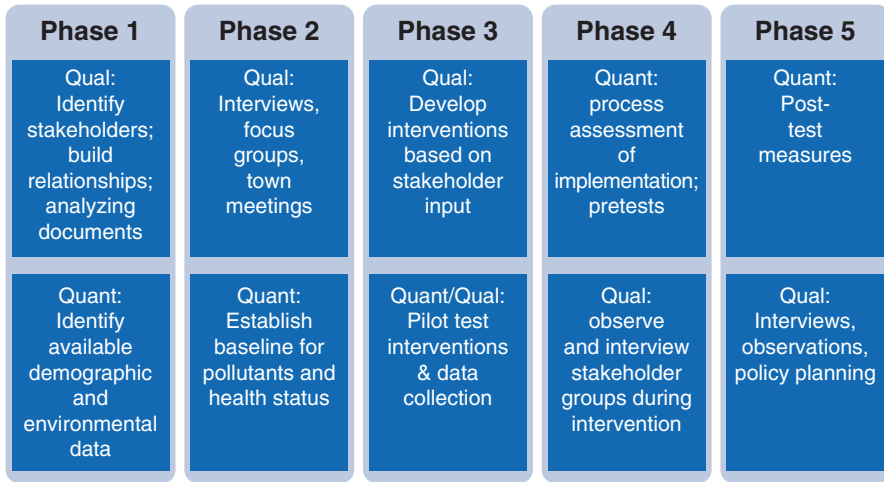
Transformative Mixed Methods in Korea

Phase 1	Phase 2	Phase 3	Phase 4	Phase 5
Qual: Identify stakeholders; build relationships; analyzing documents	Qual: Interviews, focus groups, town meetings	Qual: Develop interventions based on stakeholder input	Quant: process assessment of implementation; pretests	Quant: Post-test measures
Quant: Identify available demographic and environmental data	Quant: Establish baseline for pollutants and health status	Quant/Qual: Pilot test interventions & data collection	Qual: observe and interview stakeholder groups during intervention	Qual: Interviews, observations, policy planning

Fig. 3 Example of a transformative mixed methods design developed in Korea (Mertens 2014b)

A transformative mixed methods design was developed for use in South Korea as a way to address their social, economic, and environmental issues. This design is depicted in Fig. 3.

A mixed methods cyclical design to study the performance of Korean eco-parks within a context of furthering symbiosis, social justice, and gender equity might include several phases of quantitative and qualitative data collection (Mertens 2014b). In Phase 1, researchers need to establish who should be involved; this may include recruiting co-researchers from the communities who can serve as liaisons with groups that might be suspicious of the researchers. Dimensions of diversity that are relevant within the contexts need to be identified, and members of those communities need to be consulted in culturally appropriate ways to determine recommended ways of interacting. Documents that are relevant to the culture and the issues need to be systematically reviewed. The results of this qualitative phase of data collection can be combined with quantitative data that is available concerning demographic characteristics and environmental quality indicators. Documents concerning climate change and the evaluation of efforts to address this issue would be relevant reading.

Based on the results of Phase 1, the researchers can implement systematic data collection of both quantitative and qualitative nature to gain a better and broader understanding of the context and to establish baseline in terms of relevant variables, such as pollutants and health conditions. Information from Phase 2 can be used in Phase 3 to develop multilevel interventions that address stakeholders' concerns. The proposed intervention can then be pilot-tested through the collection of both quantitative and qualitative data. This information would be used to refine the intervention and data collection strategies. For example, in a blog composed for the

Independent Evaluation Group at the World Bank, Chomitz (2014) discusses the challenges and advantages of evaluating demonstrations and pilot projects to inform decisions about interventions:

> It is not as if there were a pre-existing, clear, roadmap for economic development and poverty reduction. Now the way forward is further obscured by the need for pervasive changes in the way that we produce energy, grow food, use water, and prepare for droughts, floods, and storms. There are lots of good ideas, but not all of them will pan out as expected. What's needed, at every level from the community to the planet, is the acuity to recognise both dead ends and promising pathways as rapidly as possible… Demonstration and pilot projects—which prove technical feasibility, work out regulatory issues, and reduce perceived investment risks—can have far-reaching impacts, but are successful only when they specify what is being demonstrated to whom, why, and how. The CIF [Climate Investment Funds] evaluation found that some would-be transformative energy interventions were likely to be stymied by unfavorable national energy policies.

During Phase 4, pretests can be administered, the interventions can be implemented, and ongoing quantitative data can be collected as part of the process assessment (e.g., ongoing monitoring of pollutants and health issues). This should be accompanied by ongoing qualitative data collection to maintain contact with stakeholders and bring attention to any concerns that arise. The final phase includes both quantitative and qualitative data collection to provide evidence of the effects of the interventions at multiple levels. Societal and individual indicators can be reported, as well as activities related to the use of the information generated by the study for policy changes.

Conclusions

This transformative cyclical mixed methods design builds on other mixed methods designs that have been used to provide evidence that facilitated changes in complex social situations based on attention to human rights and social justice (Chilisa and Tsheko 2014; Mertens and Wilson 2019). Application of such a design in Australia, Indonesia, and other parts of the world depends on the adaptation of this concept within each specific context. Modifications need to be made based on input from all levels of stakeholder groups. An important point at the beginning of the first cycle is to understand the historical context. For example, in each country and region, examination of the policies and projects that are relevant to the environment, economic development, and symbiosis would be critical. Throughout this paper, I have raised questions that link this design with issues of relevance that can only be answered by researchers and stakeholders familiar with the various stratifications and cultural groups in a specific location. Researchers stand at an important point in history; they have the potential to contribute to the positive intersection of environmental justice, economic development, and human rights if they so choose.

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Flinders University is built on Kaurna Land[1]:

Statement of Acknowledgement: We acknowledge that the land we met on is the traditional lands for the Kaurna people and that we respect their spiritual relationship with their Country. We also acknowledge the Kaurna people as the traditional custodians of the Adelaide region and that their cultural and heritage beliefs are still as important to the living Kaurna people today.

Flinders University addresses two metaphors in the central hub space:

- A colonial metaphor of a feather to symbolize the quill used by Matthew Flinders the explorer who kept a ship's log and diary of his travels and the many risks he faced. He had minimal respect for a literal interpretation of rules, and he managed to turn his mistakes into opportunities.
- An Indigenous metaphor from Kaurna leader Uncle Lewis Yerloburka O'Brien who gifted the following words:

When the outer world and the sky connect with the water, the two become one.

Many thanks to Michael Rook for the photographs of icebergs. Thanks also to Veronica McKay for contributing for Chap. 10 pictures by artist Jacques Coetzer

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[1] Our shared hope is to work with and through others who have the energy to work toward supporting pathways to self-defined well-being that meets the ethics test (namely decisions support the well-being of ourselves, others, and the environment) through designs that are inclusive wherever possible. Brief overview and focusing thoughts drawing on Ngarrindjeri philosophy: dynamic weaving together strands of social, economic, and environmental experience.

which were solicited for the South African literacy Kha Ri Gude (let us learn) workbooks for adult learners. We also acknowledge the picture reproduced from the school children's workbooks which also appears in Chap. 10 as well as in McKay, 2017. My thanks to Gerald Midgley for permission to cite the diagrams in Chap. 3 to explain the implications of values for making socially and environmentally just policy.

Our thanks to Jennifer Wilby for permission to include in this volume the papers delivered by McIntyre-Mills and Simbolon at the International Society for the Systems Sciences Conference in 2017. The papers appear as Chaps. 9 and 16.

Volume 1, "Mixed Methods and Cross Disciplinary Research: Towards Cultivating Eco-systemic Living," and the companion Volume 2, "Democracy and Governance for Resourcing the Commons: Theory and Practice on Rural-Urban Balance," of the series comprise papers that were presented at the symposium or that resulted from joint research that provided the basis for the cooperation. Thus, many of the papers are written together with the editors.

Contents

About the Editors

Janet McIntyre-Mills (nee Mills; publish as McIntyre-Mills) (DLitt et Phil, Sociology), is Adjunct Associate Professor at Flinders University and an Honorary Professor at the University of South Africa in the College of Education, Training and Youth Development. She is an Adjunct Professor at the University of Indonesia and Indonesian State Islamic University. The adjunct appointments recognize over 30 years' experience in policy research addressing complex social challenges.

Her recent research addresses non-anthropocentric policy for living systems. In 2017, her volumes for the Springer Contemporary Systems Thinking Series address the challenge to regenerate living systems. The sole-authored volume is entitled *Planetary Passport for Representation, Accountability and Re-Generation* and the edited volume together with Professors Romm and Corcoran-Nantes is entitled *Balancing Individualism and Collectivism: Social and Environmental Justice*. The latter comprises collected papers from the Special Integration Groups for the International Society for the Systems Sciences that McIntyre chairs together with 16 international contributors, including early career researchers. The research seeks a better balance across social, cultural, political, economic, and environmental inter-species concerns to ensure a sustainable future for current and future generations. The ecological citizen uses a "planetary passport" to track the distribution and redistribution of resources in the interests of social and environmental justice. Engagement links high-level challenges with individual perspectives, facilitating nuanced investigation of the complex ethical challenge of closing the gap in life chances. The central argument looks for ways to hold the powerful to account so as to enable virtuous living by the majority, to be demonstrated in a "planetary passport" that demonstrates a careful use of resources and a way to protect habitat for living systems.

Norma R. A. Romm (DLitt et Phil, Sociology) is Research Professor in the Department of Adult Basic Education and Youth Development, the University of South Africa. She is the Author of *The Methodologies of Positivism and Marxism: A Sociological Debate* (Macmillan, 1991), *Accountability in Social Research: Issues and Debates* (Springer, 2001), *New Racism: Revisiting Researcher Accountabilities* (Springer, 2010), *Responsible Research Practice: Revisiting*

Transformative Paradigm in Social Research (Springer, 2018), *People's Education in Theoretical Perspective: Towards the Development of a Critical Humanist Approach* (with V. McKay, Longman, 1992), *Diversity Management: Triple Loop Learning* (with R. Flood, Wiley, 1996), and *Assessment of the Impact of HIV and AIDS in the Informal Economy of Zambia* (with V. McKay, ILO, 2008). She has coedited three books—*Social Theory* (with M. Sarakinsky Heinemann, 1994), *Critical Systems Thinking: Current Research and Practice* (with R. Flood, Plenum, 1996), and *Balancing Individualism and Collectivism: Social and Environmental Justice* (with J. McIntyre-Mills and Y. Corcoran Nantes, 2017, Springer). She has published more than 100 research articles on the contribution of research to social development, the way in which research can be practiced accountably, Indigenous ways of knowing and living, and the facilitation of adult learning. She has worked on a range of projects aimed at increasing equity for organizations such as the ILO, ADEA, IOM, and UNESCO.

About the Authors

Harnida Adda is currently a Lecturer in the Management Department, Tadulako University, Indonesia. She received her BA in Economics with a specialization in Human Resource Management from Tadulako University in 1999. She completed her MA in Women's Studies from Flinders University, South Australia, in 2004. Her passion for women in managerial positions has inspired her to write a MA thesis entitled "A Question of Style: Gender and Management in Asian Countries," which enabled her to explore the issue of leadership styles of women executives in Malaysia, Singapore, Thailand, the Philippines, and Indonesia. She started her PhD in Women's and Gender Studies at Rutgers in 2008 with a Fulbright Scholarship and completed the program in 2014. Her thesis focuses on rural women's economic empowerment as a way to improve women's ability to bargain for better contributions in societies. Apart from teaching, she also speaks and undertakes research on how to enhance the quality of women's leadership as part of human resource development strategy.

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which are both challenging and rewarding in enabling capacity development and social inclusion among marginalized rural population which does not experience much social justice. He has published widely in both national and international journals.

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Aroha Henry is a New Zealand Maori of Nga Puhi descent and recently worked as Executive Assistant at the National Foundation for the Deaf in New Zealand, and as a person who has a moderate hearing loss, Louise uses two digital hearing aids with amplification and FM technology to communicate and socially integrate.

Sharlene Hesse-Biber B.A., M.A., Ph.D. University of Michigan, is Professor of Sociology and the Director of the Women's Studies Program at Boston College in Chestnut Hill, Massachusetts. Over the course of her career, Dr. Hesse-Biber has published on a wide range of topics. Her major focuses include women and body image, qualitative research methods, mixed research methods, feminist pedagogy and methodology, and most recently, genetic testing and men's and women's health.

Janet McIntyre-Mills is Adjunct Associate Professor in the College of Business, Government and Law and a Fellow of the Torrens Resilience Institute at Flinders University.

Donna Mertens is Professor Emeritus at Gallaudet University with a specialization in Research and Evaluation Methodologies designed to support social transformation. She has authored, coauthored, or edited over 18 books related to research and evaluation methods and human rights, most recently *Mixed Methods Design in Evaluation*; *Research and Evaluation in Education and Psychology: Integrating Diversity with Quantitative, Qualitative, and Mixed Methods*; *Indigenous Pathways into Social Research: Voices of a New Generation; Program Evaluation Theory and*

Practice: A Comprehensive Guide; and *Transformative Research and Evaluation*. Her scholarly work focuses on the intersection of research and evaluation with social justice and human rights and is situated within the philosophical assumptions of the transformative paradigm.

Professor Donna Mertens taught MA and PhD hearing and deaf students in education, psychology, social work, administration, and international development for 32 years. She has conducted professional development related to transformative mixed methods in many contexts, e.g., the Australasian Evaluation Society in Australia and New Zealand; the African Evaluation Association in South Africa, Niger, Uganda, and Ghana; the Grupo de Institutos, Fundações e Empresas, in Brazil; the World Bank and the Community of Evaluators in India and Nepal; the Sri Lanka Evaluation Association in Sri Lanka; and UN Women and Evaluation Partners in Kazakhstan and Kyrgyzstan. Mertens also served as the Editor for the *Journal of Mixed Methods Research* 2010–2014. She was President of the American Evaluation Association in 1998 and served on the Board from 1997 to 2002; she was a founding Board Member of the International Organization for Cooperation in Evaluation and the Mixed Methods International Research Association.

Keith Miller is a Senior Lecturer at Flinders University. Keith's adult life has been involved in the human services' field in varying capacities. Immediately prior to commencing at Flinders University, he was employed in the health sector in South Australia in the planning and provision of mental health services. Keith commenced as a Lecturer in mid-2006 and continues to be deeply committed to the well-being of citizens. Keith's areas of interest include mental health and suicide, Indigenous issues, rural men, and working with practitioners to develop their capacity for research. Governance, participation, and democracy are issues of significance which are both challenging and rewarding in enabling capacity development and social inclusion among population groups which have not previously experienced social justice.

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Norma R. A. Romm is Research Professor in the Department of Adult Basic Education and Youth Development, the University of South Africa.

Jackwin Simbolon has submitted his PhD at Flinders University. He works in the Ministry of Finance where he was Head of Regional Borrowing and worked with local governments and local water companies (PDAM) as well as assessing new loans to PDAM Tirtanadi Medan (Asian Development Bank) and the Local Government Loan Restructuring Program to formulate policies to Water and Sanitation Financing Initiatives (from the World Bank 2008–2009 and from Australia Aid). He has given plenary presentations for the National Development Planning Agency of Indonesia and the World Bank. He presented the research published in this volume at the 60th Annual Conference of the International Society for the Systems Sciences in Colorado, 2016, and won the Margaret Mead Award.

Louise Sinden-Carroll was the General Secretary of the International Federation of Hard of Hearing People (IFHOH) and lead Author of the IFHOH Toolkit and video on the Convention on the Rights of Persons with Disabilities (CRPD). In addition, she has facilitated Human Rights CRPD workshops and a discussion group for people with hearing loss from organizations in 26 countries. From 2012 to 2017, Louise chaired a collaboration of New Zealand Deaf and Hard of Hearing communities to address the issue of grossly insufficient broadcast media captioning nationally which contributes to significant social marginalization.

Sharmin Sultana is an MA student at Flinders University with a background in legal studies.

Christine Winter (ARC Future Fellow and Matthew Flinders Fellow) is a historian whose work connects the Pacific with Australasia and German-speaking Europe. She is interested in the borderlands of overlapping colonial rule and their legacies. She has published widely on Pacific-European relations during the late nineteenth and twentieth century and on the impact of World War I and World War II. Her work analyzes a wide range of subjects in the Asia Pacific: the politics of Christian missions, how social scientists were effected by war, ethnographic collecting, the development of race science, transnational politics of internment, and colonial ideologies of loyalty. The ARC Future Fellowship *Mixed-Race German Diasporas in Southern Hemisphere Mandates: Race Science, Policies and Identity Transformation* combines history of science and migration and identity studies. Her Matthew Flinders Fellowship research project *Humanitarianism or Security? The New Global Health* analyzes through a regional focus Australia's role in health research, infrastructure development, and humanitarian intervention.

Chapter 1
Summary and Key Themes: We Are the Land and the Waters

Janet McIntyre-Mills

Abstract The symposia at the Flinders University and at Universitas Padjadjaran in West Java (December, 2017) (This symposium is linked with partnership development in Indonesia. UnPad (University of Padjadjaran) is co-hosting the symposium) spread across two geographical sites explored the challenge of increased urbanisation and movement towards cities (In Indonesia the rate of urbanisation is faster than other Asian countries: According to the World Bank: 'Indonesia is undergoing a historic transformation from a rural to an urban economy. The country's cities are growing faster than in other Asian countries at a rate of 4.1% per year. By 2025—in less than 10 years—Indonesia can expect to have 68% of its population living in cities'. http://www.worldbank.org/en/news/feature/2016/06/14/indonesia-urban-story) and the implications it has for the life chances of unemployed women who become increasingly vulnerable to trafficking. Globally women, children and vulnerable members of the population face complex health, housing and social inclusion needs especially in disaster-prone areas (https://www.theguardian.com/environment/2015/nov/27/christiana-figueres-the-woman-tasked-with-saving-the-world-from-global warming). Since the Stern Review on Climate Change (2006), little has been achieved in terms of mitigating the rate of warming. Burn and Simmons (2006) and Finn (2016) highlight the global and regional risks associated with the effects of climate change on the most vulnerable. The border protection mentality is becoming more prevalent globally, but human trafficking, disaster and climate change are transnational issues that require a big picture approach. This paper provides an overview of the symposium and gives a sense of the key points made across the papers provided. The common theme across the two sites is the need to protect the land and to prevent exploitation of people and the environment and to find ways to protect food, energy and water security through caring for people and living systems of which they are a strand.

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Introduction

As indicated in the Acknowledgements, Flinders University addresses two metaphors in the central hub space:

- A colonial metaphor of a feather to symbolise the quill used by Matthew Flinders the explorer who kept a ship's log and diary of his travels and the many risks he faced. He had minimal respect for a literal interpretation of rules and he managed to turn his mistakes into opportunities.
- An Indigenous metaphor from Kaurna leader Uncle Lewis Yerloburka O'Brien who gifted the following words:

  When the outer world and the sky connect with the water, the two become one.

Metaphors can help to transform our thinking and practice. Just as the water and the sky meet when we look to the horizon, we need to realise that the future requires us to heal the divides in our thinking and practice. Often narratives and metaphors precede formulas. But the same point is made when we unpack and consider the implications of the Intergovernmental Panel on Climate Change (IPCC) formula (2013) that stresses E (Emissions) = Population × Consumption per person × Energy Efficiency × Energy Emissions.

Globally we face a projected policy scenario in 2050 when most of the global urban population will be located in Asia (52%) and Africa (21%), according to the UN (2014: 11). The Anthropocene is characterised by rapid urbanisation and unsustainable development, which requires synchronicity across innovative design for well-being and resilience that takes into account food production and responsive green urban-rural balance to create sustainable employment and habitat (Battersby 2012, 2017; Crush and Riley 2017; McIntyre-Mills 2017a, b; Romm 2017, see also United Nations Human Development Index (2003), United Nations Sustainable Development Goals (2017), United Nations Declaration of the Rights of Indigenous Peoples (2007), United Nations Office for Disaster Risk Reduction (2017)).

In line with the Paris Declaration (1997, 2005), public administration needs to be framed together with coresearchers with local lived experience. Papers to address the themes have been grouped in two volumes, namely, volume 1 'Mixed Methods and Cross Disciplinary Research: Towards Cultivating Eco-systemic Living' and 'Democracy and Governance for Resourcing the Commons: Theory and Practice on Rural-Urban Balance' to address loss and displacement.

Drought, fires and floods are not one-off events; they are indicative of climate change caused by the overconsumption and mismeasuring our lives, to use Stiglitz et al.'s (2010) terminology. It suggests that the privileged lives of some (and their high carbon footprint) could lead to 'existential risk' for all forms of life on the planet (Bostrom 2011). The price of inequality—national and global—has escalated.

This is why it is important to work across conceptual boundaries whilst respecting diversity to the extent that freedom and diversity do not undermine the rights of others (including sentient beings) and future generations of living systems.

We also draw on Ngarrindjeri philosophy[1] to inform the key metaphor of dynamic weaving together of strands of social, economic and environmental experience to address the big challenges of the day, namely, climate change, poverty, conflict, displacement of people and loss of habitat.

Areas of Concern Can Be Simple or Complex

Simple problems have few variables and are uncontested by stakeholders, whereas complex problems comprise many, interrelated problems and are perceived differently by different stakeholders. The same problem, however, may be seen differently in different contexts.

For example, cycle paths could be seen as 'a must' in some congested cities as a means to reduce carbon emissions, whereas in others, they can be seen as problematic, because cars are regarded as important for transporting people quickly, because 'time is money' and people want to travel fast from place to place. This is because the 'business as usual' approach does not take on board the impact of climate change.

Context is thus important when addressing all issues, but some areas of concern, such as poverty, climate change and terrorism can be generally perceived as wicked challenges, because they comprise many interrelated variables and are perceived differently by different stakeholders.

Policy research that aims to make a difference needs to engage diverse stakeholders and strive to find a way to find areas of shared concern based on assumptions and values that support social and environmental justice. Transformative research starts from this axiological assumption.

Complex problems have many interrelated variables and are perceived differently by different stakeholders. Finding a solution requires co-creation.

The papers in this volume use mixed methods sequentially or in combination. In some instances the methods are used in order to provide support or to provide a contrasting view of historical and current events.

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[1] Please watch the following: https://www.youtube.com/watch?v=rGIsv-dSs40, https://www.flinders.edu.au/about/indigenous-commitment and http://www.flinders.edu.au/oise/acknowledgement-to-country.cfm or http://www.reconciliationsa.org.au/learn/welcome-and-acknowledgement-of-country—*protocol for use The Statement of Acknowledgement is to be read out at the commencement of gatherings held within the Adelaide region.*

Multiple and Mixed Methods Approaches

The multisite symposium based *in Adelaide, South Australia* and Bandung, West Java,[2] *explored discourses* and opportunities through intra-, inter- and cross-disciplinary approaches. The terms intra-, inter- and cross-disciplinary were explored (McIntyre-Mills 2017a, b) (Table 1.1):

Summary of Papers in Volume 1

The primary goal of the workshop in Adelaide and the symposium[3] in Bandung was to address the Australian Research Council's research priorities, namely:

(a) 'resilient urban, rural and regional infrastructure'
(b) 'develop options for responding and adapting to the impacts of environmental change'

Table 1.1 The terms intra-, inter- and cross-disciplinary

Intra-disciplinary	Interdisciplinary	Cross-disciplinary
Working with the assumptions and values within a bounded system	Working across the assumptions and values across open porous conceptual boundaries	Working across the assumptions and value of bounded systems
Creativity is limited to a single paradigm	Creativity is fertilised through comparing, contrasting and creating syntheses and new integrations	Creativity is informed by respecting differences and spaces where diversity is fostered

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[2] We will address the wicked problem of creating jobs and then link to the so-called blue economy, and methodologically we request that papers to address the inter−/trans- cross-disciplinary theme. Pauli's visionary ideas could be extended by drawing on examples of projects using gender analysis, mainstreaming, participatory action research and engagement processes to enhance representation, accountability and regeneration of social, economic and environmental resources. 'What is the problem represented to be'? (Bacchi 2009).

[3] Papers are invited to address the challenges posed by Rorty (1999) In 'Achieving our Country' to be practical, engaged academics rather than spectators. We envisage a small conference of no more than 35–45 participants. Twenty papers will be selected from papers submitted prior to the event and discussed at the symposium together with members of the community with lived experience. We hope to learn more from Kaurna participants about the gifted words to Flinders: Ngayirda karralika kawingka tikainga yara kumaminthi: 'When the outer world and the sky connect with the water the two become one' from Kaurna elder Uncle Lewis Yerloburka. This symposium will contribute to developing a theoretical framework that can translate present understanding about the promotion of going beyond sustainable living, resilience and recovery into practical guidance for communities, response agencies and professionals in effective long-term resilience and regeneration. Papers to address the themes include the following: unemployment with particular reference to those left behind in the current economy (particularly women and young people) to explore the potential of new alternatives such as the so-called Cascade, Blue Economy.

(c) 'contribute to expanding knowledge through studies of human society' by exploring culturally diverse ways of caring and stewardship.

In the Preface by *Donna Mertens*, she discusses transformative research and ways to address wicked problems with stakeholders, and Sharlene *Hesse-Biber* develops a podcast discussion on mixed methods and re-presentation and its implications for thinking and practice.

Chapters 1–4 by *McIntyre-Mills* set the scene by focusing on mixed methods at the intersection of demographics and ecological humanities for enhancing social and environmental justice. They explore the implications of urbanisation, loss of territory, loss of species and the implications for living systems of which we are a strand. Her work focuses on the wicked problem of creating jobs and then link to the so-called blue economy and methodologically addresses the inter−/trans- cross-disciplinary theme.

'Water flow' is not only vital for living systems; it is a symbol that underpins this approach to regional praxis for social and environmental justice. Other organic root metaphors emphasise the need to appreciate diversity so that we balance individual and collective needs by recognising the impact of loss of land.

To sum up, the volume 'Mixed Methods and Cross Disciplinary Research: Towards Cultivating Eco-systemic Living' (subtitled 'We are the Land and Waters') and its companion volume 'Democracy and Governance for Resourcing the Commons: Theory and Practice on Rural-Urban Balance', subtitled 'Getting Lost in the City', can be considered as a source of ideas for policymakers and those engaged in strategic thinking to protect living systems of which we are a strand. We hope that it supports regeneration and that it helps to support so-called well-being stocks, a concept adapted from Stiglitz et al. (2010: 15) to refer to a multidimensional measure of well-being.[4]

The aim of the concept 'well-being stocks' is to enable people to re-evaluate economics and to become more aware of the way in which we neglect social and environmental aspects of life. The pursuit of profit at the expense of people and the environment is a central problem for democracy and governance. The vulnerability of cities is a symptom of the lack of balance between individual and collective needs.

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[4]We spend research efforts on narrowly defined areas that are defined by gatekeepers who represent short termism and the 1%. The terms of reference need to be widened. Fighting over whether to fund submarine development in Adelaide is one example of the challenge for defence. The focus needs to be on human security and prevention of cascading social, economic and environmental challenges. Last week I attended a European Commission workshop in Adelaide attended by senior public sector researchers and military strategists. The event was opened by Danish Ambassador to Australia with the statement that he stressed to his grandchildren that they should not have children as by 2050 life could be too stressful. Adelaide and Copenhagen are friendly rivals to become carbon neutral by 2020. More cities need to take up this challenge. The aim of my research is to explore ways to narrow the gap between the life chances across the diverse stakeholders within nation states, respective of whether they are citizens of a nation state or not. Most of my work to date has make a case for giving a voice to the voiceless and addressing the social, economic and environmental life changes of all generations by understanding our interdependency as part of an overall living system.

Recently, nations in the South Pacific have voiced their concerns about the way in which climate change is impacting their life chances and the extent to which regional mitigation and adaptation choices matter to Pacific islanders facing inundation.[5]

The thematic panels and papers which were the themes for the symposia on which this volume is based are as follows: (a) conflict, displacement and loss (past and present), (b) caring for people and place (transformative practice to protect habitat for living systems), (c) social economic and environmental challenges for transformation and (d) fragmentation as strangers in country. Each of the panels included discussion of how they address multiple and mixed methods.

Christine Winter draws on historical records and oral histories to understand the way in which war in the Pacific during the Second World War affected the life and life chances of the people, plants and animals and how they managed to survive. Her paper combines qualitative methods and refers to some secondary quantitative data.

The papers on the Rohingya and the rights of Indigenous people in PNG similarly have relied on secondary qualitative and quantitative data. The paper by Nurfaiza on Transnational Corporations in West Papua and by the anonymous author on East Timor addresses the challenges faced by Indigenous people in West Papua.

The paper by *Quan-Baffour, Romm and McIntyre-Mills* explores qualitative and quantitative data in an iterative dialogue conducted face-to-face and by email.

Shajeda Aktar discusses the limits to women's agency in Bangladesh as a result of a local government structure that does not provide a level playing field. Bangladesh is one of the most dense areas where climate change and poverty pose everyday challenges.

Jackwin Simbolan discusses water management and the application of mixed methods to transformative research in the context of Indonesia.

Keith Miller discusses the implications of Indigenous philosophies for caring for others and country, and Susan Goff explores a practical way to reintroduce regenerative approaches to protect water flows, by drawing on Indigenous philosophies.

Robert Flood concludes the volume with his view on what it means to be systemic and caring.

The purpose of this collection is to explore the implications of urban living, increasing rates of urbanisation and increased lack of contact with natural world in the big megacities in the world where those who are able to do so rely more and more on artificial environments to retreat from pollution caused by car exhausts and the heat exacerbated by carbon emissions. Some of these themes have been explored in my previous publication (McIntyre-Mills 2017a, b) but are extended here.

In Australia we are a mostly urban nation hugging the coasts and clustering along rivers. Caring for country will also become increasingly important if we are to remain resilient. The increasing loss of land to commercial groups and the moneyed classes is making the rural poor more vulnerable.

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[5] ABC (7/9/2017).

The glossy presentations by government and the private sector of development interventions with civil society often bear little resemblance to what is happening on the ground. Participatory action research is now presented as a means to earn funding, but it does not translate into sustainable interventions, because the norms and values of so-called green sustainable development do not enable the poor to survive unless it creates employment opportunities.

Both a priori norms to guide development and a posteriori considerations are needed to measure the performance of the UN Sustainable Development Goals to protect sentient beings and their habitat.

The notion of virtuous living needs to be explored in terms of:

- A priori norms are guided by accepted rules of behaviour.
- A posteriori indicators and measures of performance. Both are needed in order to guide practices and to hold people and their elected government representatives to account.

The UN 2030 Agenda[6] is:

> the new global framework to help eradicate poverty and achieve sustainable development by 2030. It includes an ambitious set of 17 Sustainable Development Goals…. The 2030 Agenda for Sustainable Development sets out the global framework to eradicate poverty and achieve sustainable development by 2030.

The collection here aims to increase our understanding of life chances and dynamics of vulnerable population groups in areas most affected by climate change-related areas.

Significantly, the collection responds to complex ethical policy challenges posed by the Paris Agreement and the United Nations Sustainable Development Goals (2017), in order to narrow the gap in living standards between rich and poor. Policy choices made by this generation shape the well-being of both current and future generations. The volume explores sociocultural discourses, life chances and behaviour to inform policy and to improve public administration by learning what does and does not work and why from the most vulnerable populations. The focus is on protecting 'well-being stocks'—a concept adapted from Stiglitz et al. (2010: 15) to refer to a multidimensional measure of well-being spanning:

> 1. Material living standards (income, consumption and wealth), 2. Health, 3. Education, 4. Personal activities including work,[7] 5. Political voice and governance, 6. Social connections and relationships, 7. Environment (present and future conditions), 8. Insecurity, of an economy as well as a physical nature.

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[6] http://europa.eu/rapid/press-release_MEMO-15-5709_en.htm

[7] Leisure within a natural environment should also be valued. The notion of restoring the spirit through visits to the sea, bush, desert and mountains is commonly recognised now as 'ecotourism'. According to Stiglitz et al. (2010), the essence of the commissioned work's findings is that wealth needs to include stocks for the future—social, economic and environmental. Stiglitz, Sen and Fitoussi (2010) look at reconceptualising what we value and why, but they do not place it *above any monetary measure* as sacred dimensions of the basis for life. By measuring we commodify, and this can result in commodifying the very things that should be beyond price. The way to achieve this is in part through public education and a recognition of our interconnected place within living systems.

Summing up the Area of Concern and Policy Paradoxes

The greatest challenges are the consequences of inaction that will potentially pose an 'existential risk to humanity' (Bostrom 2011). These challenges include representation of the increasingly diverse populations within nation states along with accountability to ensure that resources (e.g. water, food and energy) are used fairly, equitably and sustainably in local and regional biospheres. This has implications for policy and politics, because the gaps between rich and poor and the powerful and the powerless have become wider and wider (Wilkinson and Pickett 2009).

Representation, accountability and sustainability challenges need to be met through addressing consumption choices that are currently very unequal. The gaps between rich and poor, the powerful and the powerless have become wider and wider. We can take heed that:

> "The will to power is perhaps the key concept in Nietzsche's philosophy. The will to power appears to be the basis for the geography of nation states and the way in which international relations is conducted. It is strongly connected to his concept of 'life'. So in Beyond Good and Evil Nietzsche says 'A living being wants above all else to release its strength; life itself is the will to power'."[8]

The current way of life is unsustainable and in a bid to maintain the status quo profit is extracted from people and the environment. As a transformative policy researcher, I have drawn on West Churchman's Design of Inquiring Systems Approach (1979) to consider whether I have taken into account these dimensions of experiential learning:

- What is the content of the issue (or area of concern)?
- What is its context?
- What is the structure of the organisation or community?
- What are the group dynamics?
- What is the processes for managing people?
- Who is included or excluded from decisions?
- What a priori norms have been considered?
- What are the a posteriori consequences of decisions and who decides and why? If there is a problem, have I engaged with others to brainstorm or 'heartstorm' (Banathy 1996) other options with the aid of scenarios?
- Have I 'tried out'/piloted alternatives and engaged in ongoing learning?

The power to decide what constitutes knowledge needs to be recognised (Foucault 1980) as a precursor for making the effort to consider the value of many ways of knowing including creativity, instinct, learning from nature and other organic and inorganic life forms as well as Churchman's (1979) list of ways of knowing including logic, empiricism, the dialectic and pragmatism and learning by listening and watching.

Bela Banathy made a plea that we should learn 'not to make caterpillars go faster, when what we need are butterflies by examining and challenging, how people think,

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[8] http://documents.routledge-interactive.s3.amazonaws.com/9781138793934/A2/Nietzsche/NietzscheWillPower.pdf

what they believe and how they see the world' (Banathy 1991 in Norum 2001: 330). Through research and leadership received from Xhosa, Swazi, Arrernte and Ngarrindjeri mentors, I learned that we exist through our relationships and interdependency.

Capitalist, urban cultures forget people and country as detailed in this volume. When I experienced and listened to the story of caterpillar dreaming, butterfly being (see also McIntyre-Mills 2003 and Chap. 8 of this volume), it resonated and I began to understand the importance of regeneration and protection of people and habitat. The resonance of regeneration and continuity is one that is lost when we use the resources of this generation and leave nothing for the next generation of life. The next metaphor that helped shape 'planetary passport' came from weaving. The work of the women at Neporendi was used as a metaphor for weaving together strands of experience that extends the so-called Triple Bottom Line accounting (Elkington 1997) and accountability to include a sense of ongoing, everyday commitment to being the change through our everyday choices.

The systemic focus builds on the body of work developed in the Contemporary Systems Series (McIntyre-Mills et al. 2017 and McIntyre-Mills 2017a, b). It is based is on being mindful of the need to design policy that supports living systems (Wadsworth 2010). 'Ecological citizenship' needs to ensure that the requisite variety (Ashby's Rule 1956) is extended beyond consideration of anthropocentric systems to non-anthropocentric living systems, so that stewards protect habitat. The research seeks a better balance across social, cultural, political, economic and environmental interspecies concerns. We need to address the regeneration of current and future generations of living systems.

Critical systemic thinking and practice helps to explore our thinking and our relationships spanning self, others and the environment. As a meta form of inquiry, it is based on questioning boundaries of inclusion and exclusion, it examines the so-called enemies within (religion, mortality, politics and aesthetics) and it considers the consequences of our choices. It examines the value placed on ecosystems (Fisher et al. 2009) and how this impacts on beliefs and intentions. This proposed research will explore the perceived implications of the stewardship of biodiversity for well-being (as defined above by Stiglitz et al. 2010).

Resilience is defined as the adaptive capacity of the physical environment, of an individual or of a group. It concerns factors such as the capacity of members of a community to act together and to be able to regenerate the living systems of which we are a strand (Capra 1996; Rose 2005; Hulme 2009). Biodiversity refers to:

Current rates of species loss exceed[ing] those of the historical past by several orders of magnitude and showing no indication of slowing. Major drivers of biodiversity loss on a global scale are land-use changes and agricultural intensification. These processes are threatening ecosystem functioning and services on which humans depend…. In consequence, there is a deep concern that a loss of biodiversity and deteriorating ecosystem services contribute to worsening human health, higher food insecurity, increasing vulnerability of ecosystems to natural disasters, lower material wealth; worsening social relations by damage to ecosystems highly valued for their aesthetic, recreational or spiritual values; and less freedom ….Growing awareness of the importance of biodiversity for human wellbeing has led governments and civil society to set targets to reduce …loss. (see Convention on Biological Diversity;www.cbdint, Lindemann-Matthies 2014: 195–196)

The thinker in residence, Baroness Professor Susan Greenfield, stressed in her book, *The Private Life of the Brain*, that unless we learn to think about our thinking we will be guided by our emotions. Emotions are the most basic instinctive drives; they are being tapped into by populists, and we need to revisit the importance of ethical living and the importance of governments setting the agenda by nudging people to make the best decisions and to help people to make better decisions every day in their household management. If people think that capitalism should deliver growth and more consumer items and they are fed a daily dose of sitcoms and adverts fostering envy and greed, it creates a toxic situation where social, economic and environmental deterioration leads to systemic effects. If we accept that people get the governments they deserve, as Orwell suggested, then rational people need to become increasingly aware of the role that emotions play in decision-making and voting.

Democracy is in crisis today because we have elected leaders who support the state and the market and create false hopes that are at the expense of the majority of people and the environment. This is because the structure and process of democracy is such that paradoxically people cannot afford to be elected unless they have campaign funds. The mainstream media are increasingly owned by the market, but the role of alternative forms of media could hold the state and the market to account. Alternative forms of democracy and governance are possible as outlined elsewhere in 'Identity, democracy and Sustainability' (McIntyre-Mills and De Vries 2011), 'Systemic Ethics' (McIntyre-Mills 2014a, b, c), 'Wall Street to Wellbeing' (McIntyre-Mills et al. 2014) and 'Planetary Passport' (McIntyre-Mills 2017a, b).

Critical capabilities are required to enable appropriate, systemic responses at multiple levels (Pierre et al. 2000) based on an understanding of 'What the Problem is Represented to Be' (WPRB) (Bacchi 2009). Then commoners who guide the commons need to be inspired to think about how things could be done differently by using a Design of Inquiring Systems Approach (Churchman 1979; Ulrich and Reynolds 2010).

In line with the Paris Declaration (1997, 2005), UN Sendai Framework for Disaster Risk Reduction (2015–2030) needs to be addressed through reducing the gap in life chances and enhancing social inclusion (Goals 10, 11, 12, 14, 15, 16) through partnerships our approach needs to be framed together with coresearchers based on local lived experience.

Case Studies as a Lens to Understand the Broader Global Concerns

This volume and its companion volume, 'Democracy and Governance for Resourcing the Commons: Theory and Practice on Rural-Urban Balance,' address loss and displacement and ways to regenerate opportunities. It concentrates on a few case study areas. Indonesia, Africa and Australia are three regions affected by demographics, climate change and people movements. Three so-called canary cases in Australia,

Asia (West Java and East Timor) and Africa (South Africa) are selected because demographically they face increased levels of urbanisation and are impacted by droughts, floods and fires. The flow of people is from North Africa (less developed and more populated) down to Southern Africa (more developed emerging economy, but with a lower population increase of 2.4 children per woman). The push factors from the North are population growth (where the Democratic Republic of the Congo and Central African Republic have five or more children per woman) affecting human security water and food shortages that lead to malnutrition (Harper 2016). These push factors are linked with the political dynamics of social exclusion, land loss and food insecurity that make people vulnerable to disaster and in its aftermath to trafficking. The role of trafficking is also a problem in Southern Africa where poverty is strongly linked with prostitution and human trafficking in urban centres such as Gauteng and Cape Town. Similar trends are becoming more prevalent in Indonesia (West Java).

Australia has a growing population because of migration to the 'Lucky Country', Horne's (1967) ironical title for a country and economy where sheep, cattle and mining need to be understood as part of the economics and politics of climate change.

Saudi Arabia is also included here as its economy is based on a carbon economy and (until recently) it was a destination area for migrant workers from Indonesia. It remains a destination for migrant workers. The chapter by Algraini and McIntyre-Mills addresses the need to develop new capabilities in line with the Sustainable Development Goals to protect both people and the habitat of living systems.

The case studies provide a valuable lens for understanding the intersection of ecological humanities and ethics (Gibson, Rose and Fisher 2015), multispecies ethnography informed by a critical reading of sociology and anthropology of development (Gibson-Graham and Miller 2015) and capability studies (Nussbaum 2011; Sen 2003, 2005).

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Chapter 2
Dynamic Weaving Together Strands of Experience: Multiple Mixed Methods Approaches to Resilience and Regeneration Based on Intra-, Inter- and Cross-Disciplinary Approaches

Janet McIntyre-Mills

Abstract The collection of papers in this volume *Mixed Methods and Cross-Disciplinary Research Towards Cultivating Eco-systemic Living* and its companion volume *Democracy and Governance for Resourcing the Commons: Theory and Practice on Rural-Urban Balance* addresses health, development and social inclusion to enhance our understanding of how to manage complex needs based on mixed methods (Hesse-Biber, Qualitative approaches to mixed methods practice, 2010; Mertens et al., Indigenous pathways into social research, Left Coast Press, Walnut Creek, 2013; Mertens, Evaluation and Program Planning, 59, 102–108, 2016). It aims to critique governmentality (Foucault and Gordon, Power/knowledge, Harvester, Brighton, 1980) and the existing governance context for UN Sustainable Development Goals through exploring frontiers (Rose, Dislocating the frontier, 2005; Nussbaum, Frontiers of Justice, Harvard University Press, London, 2006), discourses (Bacchi, Analysing policy. What is the problem represented to be?, Pearson, New South Wales, 2009) and scenarios of different policy and practice. The links across greater equality and wellbeing and the prevention of global warming appear to involve 'limiting consumerism' and narrowing the gap in living standards between rich and poor (Wilkinson and Pickett, The spirit level, Allen Lane, London, 2009, 221). It is assumed that greater social and economic equality will provide the key to reducing the cultural pressure to consume at the expense of the majority in this generation and the next. In this chapter I offer some reflections on displacement and loss as experienced by first Indigenous nations in Australia, New Zealand, the USA, Canada and Guam in order to compare and contrast the approaches to citizenship and identity and its implications for state sovereignty.

Keywords Food · Water · Systemic webs and flows

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Introduction: Water Flows and Food Webs Are Defining Metaphors

I think that the contribution we are making across the volumes is that we are drawing together all the strands that need to be considered when we do research to protect living systems. So the process of being, relating to others (axiology), listening, observing and feeling are aspects of ourselves that we draw upon when we engage with others, in order to do what Mertens (2010) has called transformational research. As a whole the volume tries to address some of these ways of engaging with others. Hesse-Biber's (2010) past work on re-presenting the views of others and the critical systemic work on iterative dialogue (McIntyre-Mills 2000, 2003, 2014) and Flood and Romm's (2018) work on systemic intervention could help to develop a discussion around what it means to be present and represent others and recognise the presence of others (including sentient beings) and the environment that supports us. It also draws on ways to combine methodologies in response to social justice concerns (Cram 2015; Tlale and Romm 2018).

Dynamic Weaving Together Strands of Experience

Axiologically the capabilities approach (Nussbaum 2011) extends human rights to the rights of all sentient beings to live a life worth living. This entails stewardship of the diverse and interrelated species on which we depend as strands within one living system. The recognition of our vulnerability is a starting point for Butler who stresses that interdependence, and a duty of care, rather than independence and a duty to strive for rights at the expense of responsibility to others, should be part of a new transformative narrative based on distributive learning from one another and from nature.

> Aboriginal Law refers to a complex relationship between humanity and land which extends to cover every aspect of life; to that extent it is what theorists call a "complex system", in that it explains both the observer and the observed. In that sense the Law is both a science and a religion, in Western terms. It is a religion in that it explains both the origins and meaning of the cosmos (including the observer), and it is a science in that it does so rationally, and with empirical support. To this extent, Aboriginal Law differs from modern Western ideas of "positive law". (Graham 2008: 190)

Weir (2015) in her essay 'Lives in Connection' stresses the need to avoid 'separation thinking' and that we need to understand an 'expanded connectivity' that avoids dualism. The language of water flows and food webs provides root metaphors for transforming and rescuing the enlightenment dualism from its disconnection with others, including sentient beings and nature as a way to protect the commons. Ngarrindjeri philosophy is based on weaving together strands of experience to protect multiple species, people and country. It fosters a non-anthropocentric approach to living systems of which we are a strand. River grasses are significant as

they protect the River Murray by removing high levels of salinity when the water ebbs during droughts and low tides (McIntyre-Mills 2014, 2017). The grasses are used to weave baskets—their form and function whilst practical also symbolise interdependency and the importance of dialogical design. This book addresses one of the Australian government's research priorities, 'Environmental change', which requires the integration of research outcomes from a range of stakeholders and disciplines to support the commons. Bollier and Helfrich (2012: xii) stress that as commoners we are:

> Creative, distinctive individuals inscribed within larger wholes" and they stress that "as the corruption of market/state duopoly has intensified, our very language for identifying problems and imagining solutions has been compromised… "They stress that human beings need to "start seeing ourselves as commoners in relation to others, with a shared history and shared future" to create "a culture of stewardship and co-responsibility for our common resources while at the same time defending our livelihoods". They explain that: "The commons help us recognise, elicit and strengthen these propensities. It challenges us to transcend the obsolete dualisms and mechanistic mindsets. It asks us to think about the world in more organic, holistic and long term ways…

Each voice engaged in participatory democracy and governance becomes a node in the network which grows exponentially as more voices are added and more resources are shared. This is why generosity in sharing ideas is so important and why it is important not to set up barriers to knowledge sharing. As such, it recognises that decisions (derived from Latin 'to cut') need to be carefully made if we are to 'rescue the enlightenment from itself'. These themes have been addressed in the West Churchman Series (McIntyre-Mills and Van Gigch 2006) which discusses the importance of critical systemic approaches that are open to many ways of knowing. In this sense it is very different from operations research and traditional systems thinking.

Indisputably policy choices made by this generation shape everyday decisions that will determine the wellbeing and resilience of current and future generations of life. The Anthropocene is characterised by rapid urbanisation and unsustainable development which require balancing regional and urban area developments (Ellis et al. 2016, Romm 2017). Better urban governance needs to ensure that cities remain liveable and sustainable during and after the development process.

Romm stresses in her chapter in the book *Balancing Individualism and Collectivism* (Romm 2017) that the Anthropocene is a phase of human history which denies our interconnection with others. Romm then cites Murove as follows (Romm 2017: 8):

> Murove refers to the African concept of *Ubuntu (translated as "I am because we are")* and relates this to the Shona concept of Ukama. He explains that Ukama means:

> "being related and interrelated, whereby human wellbeing and the wellbeing of everything that exists is understood in terms of interrelatedness. Relationality is seen as indispensable to the wellbeing of everything. (2005: 151)

Non-anthropocentrism (McIntyre-Mills 2014) identifies with ways to 'rescue the enlightenment from itself' through appreciation of other ways of knowing ways in

order to make an attempt towards halting the destructive socio-political economics of living at the expense of the majority in this generation and the next. This approach stresses the importance of many ways of knowing based on an understanding of our interdependency by drawing on the so-called tacit dimension and ways that do not perpetuate disruptive economies (Polanyi 1966, 1968). To that end, we strive to remember many human ways of knowing (Gardiner 2008) and appreciate (as far as possible) the contributions of other living systems to our collective survival. Thus, the goal is to contribute (in a small way) to disrupting the Anthropocene through striving to reconnect with others and other living systems. After all each one of us is a bundle of life forms and each one of us a host to many other organisms from our internal guts to the hairs that cover us and the air we breathe in and out!

The planetary changes associated with increased risk of drought, famine, floods, fire and tornados are becoming more pervasive. These are not one-off events. They are a way of life that poses a planetary existential risk—not merely a risk to national security (Bostrom 2011)—and they require new approaches to protecting the mangroves that in turn protect the coastlines from erosion and the planet from 80 million tons of plastic that have entered the food webs and water flows (Geyer et al. 2017).

Planetary environmental changes associated with increased risk of drought and consequent food and water insecurity are not unique events. They are perennial and pose an 'existential risk' (Bostrom 2011). Globally, women, children and vulnerable members of the population are most likely to encounter water and food insecurity in disaster-prone regions (Figueres 2015).

My research seeks a better balance across social, cultural, political, economic and environmental interspecies concerns to ensure a sustainable future for current and future generations. The ecological citizen uses a 'planetary passport' to track the distribution and redistribution of resources in the interests of social and environmental justice. Engagement links high-level challenges with individual perspectives, facilitating nuanced investigation of the complex ethical challenge of closing the gap in life chances.

The Global Covenant idea (Held 2004), Aarhus Convention and Local Agenda 21 and the Paris Agreement on Climate Change provide the policy background for the approach along with the United Nations Declaration on the Rights of Indigenous Peoples. UNDRIP (2007) provides one of the ways in which First Nations can (try) to protect habitat by achieving self-determination over a geographical area.

According to Langton, in her 2012 Boyer Lectures, an Indigenous group is:

> applied to territorially based ethnic groups that were culturally distinct from the majority population of the nation states in which they find themselves, that were politically marginalised and who identified as indigenous. (Simpson 1997)

The extent to which areas are self-determined depends on a range of contextual factors, most specifically the national political context and the extent to which policy intervention can be achieved through invoking normative aspects associated with the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP).

The Australian government has been less open to the normative aspects of the UN than Scandinavian countries. The Sami of Norway have more political self-

determination than the Sami of Sweden, and the Sami in Sweden in turn have more power than the Sami in Finland, who in turn have more power than the Sami in Russia. The latter do not have recognition by Russia, but they are members of the wider Sami Indigenous movement (Robbins 2017, personal communication and guest lecture for POAD 9030 Indigenous Public Policy).

In Australia the 'Recognise movement' has not succeeded in bringing about a referendum in the short term. Part of the challenge has been a result of the Recognise movement being seen as separate from the Treaty movement (O'Donnell 2017, personal communication and guest lecture for POAD 9030 Indigenous Public Policy).[1]

Another step in the right direction could be the development of treaties at a state level with local Indigenous language groups linked with specific areas in Australia. Then perhaps an overarching parliament or replacement for Australian and Torres Strait Islander Committee could co-ordinate state representation as an advisory group/parliament to government. This is needed as ATSIC (founded in 1989) was disbanded in 2005 by the Australian government. The reasons have varied from posing a challenge to state (federal) sovereignty to its overall ineffectiveness. The result of disbanding it was to set Indigenous representation and accountability back decades.

The longer Australia takes to make concessions to First Nations, the more they will have to apologise for the lack of recognition. The role of First Nations in resisting invasion has been an aspect of history on which Australians have been silent.

The Intergovernmental Panel on Climate Change (IPCC) formula suggests that the privileged urban lives of some could lead to 'existential risk' for people and the planet (Bostrom 2011) which is why it is necessary to enhance our understanding of consumption. Nussbaum discusses the essential capabilities that are needed by sentient beings to live a life worth living. She takes the initiative to design and construct the essential conditions. She is not suggesting that people should be limited; she is making a case for extending rights beyond the human, and in many ways she is reframing in the way that Haraway advocates when Nussbaum (2006) wrote *Frontiers of Justice* and discussed the current limitations of social contract theory to protect those who fall outside the boundaries of the nation state or outside the parameters of state protection as they are non-citizens. These include asylum seekers,

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[1] To cite the recognise campaign:

The Panel recommended that Australians should vote in a referendum to:

Remove Section 25 – which says the States can ban people from voting based on their race;

Remove section 51 (xxvi) – which can be used to pass laws that discriminate against people based on their race;

Insert a new section 51A – to recognise Aboriginal and Torres Strait Islander peoples and to preserve the Australian Government's ability to pass laws for the benefit of Aboriginal and Torres Strait Islander peoples;

Insert a new section 116A, banning racial discrimination by government; and

Insert a new section 127A, recognising Aboriginal and Torres Strait Islander languages were this country's first tongues, while confirming that English is Australia's national language. https://theconversation.com/explainer-what-indigenous-constitutional-recognition-means-31770

those who have lost citizenship because they are labelled criminal and 'other' and the disabled, and she importantly extends protection to all sentient beings and the need to protect the environment on which we all depend. In this way she introduces protection of habitat for all living systems, although she does not specifically spell out our hybrid interdependency. Andrea Nightingale has developed an intersectional study on access to land in Nepal that is shaped by caste and gender. Thus intersectional analyses need to take categories as just one dimension of more comprehensive analyses to support social and environmental justice. Furthermore, we need to take political and historical context into account, and so some of the points made by Mangcu about social justice in South Africa being inadequately served by a purely class-based analysis can be taken on board as a means to achieve a more comprehensive intersectional understanding of why people feel 'let down' by current policies in South Africa.

Donna Haraway stresses that some of the challenges need to be addressed within very specific contexts. Haraway stresses that all knowledge is situated and that we need to develop specific responses by appreciating the many factors that shape life chances within context. How we make sense of the world is shaped by our life experiences. Being aware that we are indeed the boundaries, because we can make and remake the boundaries through our policy decisions, is an important starting point for design. A great deal of the writing by Haraway critiques the notion of essentialism and instead stresses that being boundary creators frees people from the limitations of categories and recognises our hybrid relationships with others including living systems of which we are a strand.[2]

The challenge is to face up to our interconnectedness and to be able to hold in mind many variables. 'Us/them' need not expressed in terms of tribes, organisations and nations. Spaceship earth is a metaphor used by Kenneth Boulding to help reconnect humanity's sense of geography with the planet and the universe of which we are a part. It is a plea that we should strive to achieve transcendence. Human

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[2] Haraway's approach is very different from Martha Nussbaum's normative prescriptive approach to the conditions for human rights. I think that whilst their approaches are different, both have much to offer in terms of providing guidelines for protecting people and the environment. Haraway analysed the oppositional logic of scientific and sociological narratives to explore the way in which we make sense of the world in terms of us/them, west/east/animal/human, and machine/human. Haraway's mission is to demonstrate that we can make choices about how we draw and redraw boundaries, such as the following:

Empirical studies in so-called 'real' spaces on earth – studies of rights of primates and implications for ethics and interspecies boundaries	Outer space – use of primates and dogs for the purpose of exploring boundaries relevant for military control and to address expanding human territories
Inner space – use of primates to experiment on biological systems within laboratory conditions	Virtual space – drawing on the experiments inside and outside laboratories to create simulations of 'what if' the following scenarios were to apply in the so-called 'real' world or in physical outer space?

beings face the challenge of wanting to be individuals and also to be part of group. They have evolved through ability to co-operate and compete.

In order to address areas of concern in a manner that is appropriate, it is necessary to develop ethical literacy by working across disciplines in the social and natural sciences. The argument that I develop is that by drawing on primatology, we can learn that animals (primates and many mammals) have the capacity for empathy, reciprocity and fairness and that human beings have evolved because of their capacity to co-operate and not only their capacity to compete. But the next step for transcendence is to recognise our interdependency. So the thesis I develop in *Planetary Passport* (McIntyre-Mills, 2017) is the next step in our evolution. It is based on an appreciation of our interdependence. The systemic interventionist approach by Midgley (2001) provides a way forward through providing steps to address diverse values and the conflicts that ensue. Analysing ways to address an area of concern can be assisted by using an application of Ulrich's 12 boundary questions based on C. West Churchman's design of inquiring systems approach. Whilst Churchman talks of unfolding values and sweeping in, this is extended in the West Churchman Series volume 3 (McIntyre-Mills 2006) to include social, cultural, political and economic variables in order to enhance decision-making. Churchman (1982) in *Thought and Wisdom* stresses that decisions (derived from Latin to cut) need to be made based on our values and that we should remain ever vigilant about the way in which religion, morality, politics and a sense of aesthetics can filter the way in which we see the world. He calls these 'the enemies within', because they make us human and compassionate or passionately inhumane. Thus the following summary of 12 boundary questions developed by his colleague Werner Ulrich (based on his work) is only a guide to decision-making and should not be confused with a compartmentalist approach that ignores that all decisions need to be constantly revised to protect the webs and flows of living systems in which we are only a strand. So decisions made in the policy context need to be mindful of our responsibility to protect the commons (Table 2.1):

Whilst Churchman talks of 'unfolding values' and 'sweeping in' a range of factors, this is extended in the West Churchman Series (Volume 3 McIntyre-Mills 2006) to include social, cultural, political and economic variables, in order to enhance decision-making.

Churchman (1982) in *Thought and Wisdom* stresses that decisions (derived from Latin to cut) need to be made based on our values and that we should remain ever vigilant about the way in which religion, morality, politics and a sense of aesthetics can filter the way in which we see the world. He calls these 'the enemies within', because they make us human and compassionate or passionately inhumane. An example of policy decisions made on the basis of limited thinking includes the following:

1. The warehousing of asylum seekers on Manus Island in 2017.
2. The taxing of food through value-added taxes, rather than taxing the rich in 2017.
3. The testing of nuclear weapons in the Western desert region of Australia by the British from 1953 to 1963.

Table 2.1 Boundary judgements informing a system of interest(S)

Sources of influence	Social roles (stakeholders)	Specific concerns (stakes)	Key problems (stakeholder issues)	
Sources of motivation	1. *Beneficiary* Who ought to be/is the intended beneficiary of the system (S)	2. *Purpose* What ought to be/is the purpose of S	3. *Measure of improvement* What ought to be/is S's measure of success	The involved
Sources of control	4. *Decision-maker* Who ought to be/is in control of the conditions of success of S	5. Resources What conditions of success ought to be/are under the control of S	6. *Decision environment* What conditions of success ought to be/are outside the control of the decision-maker	
Sources of knowledge	7. *Expert* Who ought to be/is providing relevant knowledge and skills for S	8. *Expertise* What ought to be/are relevant new knowledge and skills for S	9. *Guarantor* What ought to be/are regarded as assurances of successful implementation	
Sources of legitimacy	10. *Witness* Who ought to be/is representing the interests of those negatively affected by but not involved with S	11. *Emancipation* What ought to be/are the opportunities for the interests of those negatively affected to have expression and freedom from the worldview of S	12. *Worldview* What space ought to be/is available for reconciling differing worldviews regarding S among those involved and affected	The affected

Source: Ulrich and Reynolds (2010: 244)

4. Nonsystemic assumptions about what constitutes social and environmental justice based on protecting living systems through policy that protects people and the environment by ensuring sustainable production, consumption, management and distribution practices based on flows and networks of interdependency. This involves thinking about how we live our daily lives in terms of relationships. How we live requires 'being, doing, having and interacting' in ways that care for the living system of which we are a strand (see Max-Neef 1991 human development and Pauli 2010 on cascade economics).

The summary of 12 boundary questions developed by his colleague Werner Ulrich (based on his work) is merely a guide to decision-making and should not be confused with a compartmentalist approach that ignores that all decisions need to be constantly revised to protect the webs and flows of living systems in which we are only a strand. Thus, decisions made in the policy context need to be mindful of our responsibility to protect the commons, and these can be informed by using critical systemic thinking tools, starting with a critical review of archetypes to help participants to think about their thinking and to recognise patterns in data but also to enable them to explore the assumptions and values that underpin them. The archetypes include the following:

- 'Fixes that backfire', for example, contracting out the Australian management of asylum seekers to Manus Island (off Papua New Guinea) resulted in the erosion

of the human rights of asylum seekers. Flanagan (2017) cites the UNHCR and describes the situation as:

a humanitarian crisis that was entirely preventable and a "damning indictment of a policy meant to avoid Australia's international obligations… On Thursday 12 Australians of the Year signed an open letter calling on the government to restore water, food supplies, electricity and medical services to the refugees, warning it was a "human disaster that was unfolding" and that "it was inevitable that people will become sick and die.

- Another example of so-called short-term policy fixes that backfire include the following: Malusi Gigaba announced that VAT would increase from 14 to 15% but that 19 items would be excluded (Budget, speech Feb, 2018). According to the commentator (see De Wet 2017),[3] the list of 19 food items may not protect the poorest South Africans whose food choices may not comply with the list.
- *Limits to growth*, for example, the higher the extraction of fish, the higher the income of fishing industry in the short term followed by a levelling off of prices and then the lowering of fishing stocks for all (adapted from Shiva's 2012).
- *Balancing loop*, for example, increased income from tourists visiting for Two Oceans' Race in Cape Town will be balanced out by increased costs for building a desalination plant for water provision. Here is another example: Building dams that provide upstream users with power/water at the expense of the security of downstream users will result in regional tensions. Another example of a balancing loop is as follows: The rhetoric of the UN Development Goals is undermined by the lack of postnational and regional governance to enable the implementation and monitoring of goals within the wider region. Once the feedback loops have been identified, the area of concern needs to be identified with stakeholders, and boundaries need to be drawn. The 12 questions help policy-makers to work with the community to delineate an area for research prompted by the boundary questions that reconsider patterns of relationship and that explore the way in which assumptions and values shape approaches.
- *Shifting the burden*, for example, can be explained by limiting the risks of testing nuclear weapons in one region by shifting the risks elsewhere. The most notorious example of nuclear testing is Maralinga. The site was named by 'white fellas' who chose the wrong Aboriginal language. The local Anangu do not use the 'Maralinga' word to mean 'thunder' (Yalata and Oak Valley communities with Mattingley 2009: 38). The cost of the testing and the effects of the explosion are explained by Yami Lester (who was ten years old at the time) and describes the fallout as 'black mist'. His exposure resulted in his being sent to the Royal Institute of the Blind:

When I was a young boy living in the desert, the ground shook and a black mist came up from the south and covered our camp. The older people said that they had never seen anything like it before, and in the months that followed many people were sick and many died. I do not like to think about it now, but one of those people was my uncle…There were sores all over his body and they looked full of pus… (cited by Matingley 2009: 39)

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[3] See the interactive website: https://www.fin24.com/Economy/are-19-vat-free-items-enough-to-save-the-poor-when-vat-hike-hits-20180325. Accessed 27/08/2018.

Thus the short-term fix by the British to upgrade their weapons at Maralinga resulted in the long-term contamination of the living systems on which the Anangu people relied. The desert is not an empty place for testing. It is a place that is greatly valued by the residents who have lived there for more than 40,000 years. They sustained the desert just as it sustained them:

> Long time ago, before whitefellas came, Anungu lived on their lands for thousands of years. The land was their life. They loved their land. They cared for the country. They knew all its secrets and they taught these secrets to their children and their children's children. … . (Yalata and Oak Valley communities with Mattingley 2009: 1)

> for generation after generation they cared for every water resource across their country— every wanampitjara (spring), every tjintjira (clay pan), every kapi piti (soak), every tjukula (rock hole). They knew and cared for every plant whose toots could supply valuable moisture, and in the early mornings they collected dew with sponges made of grass. (Yalata and Oak Valley communities with Mattingley 2009: 2)

- *Accidental adversaries*, for example, two regions in competition result in undermining the other region. As a result both nations will suffer when the effects of poverty, conflict and climate change impact neighbouring states. Two nations competing for power undermine human security for all.
- *Reinforcing loop*, for example, destroying the environment for short-term profit leads to a higher likelihood of social and environmental fallout. Another example is cutting costs for bush maintenance leads to a higher likelihood of bush fires. Another, more complex example is as follows: the more we emphasise national boundaries, the more parochial and containerist our policy approaches to climate change, displacement and poverty will become. However, the same issue could be framed as follows by a conservative policy thinker: the more we emphasise the closing of boundaries and the offshore management of asylum seekers, the less likely people will 'choose' Australia as a destination. This is very problematic as it assumes that desperate people choose to move!
- Therefore, the recognition of archetypical relationships is just a starting point and needs to be combined with a values-based approach, such as the critical heuristics approach. This approach can easily be grasped through the 12 critical questions posed by Ulrich as a distillation of West Churchman's work.
- *Tragedy of the commons* can be interpreted differently depending on our assumptions and values. Typical relationships can be characterised by the work of Senge (1990) who calls these relationships archetypes.[4] I explain that definitions of tragedy of the commons differ, depending on our assumptions and values.

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[4]Although Peter Senge stresses the need to recognise patterns of feedback as 'archetypes', a critical systemic thinker strives to recognise areas of concern and to intervene to address the issues. Whereas Senge's (1990) work stresses the need to intervene at an organisational or wider level, he stresses that without management, the commons can be abused. An example from this perspective could be as follows: increasing car traffic to large central city areas leads to congestion, pollution and time loss. Hardin (1968) stresses that the commons can and should be privatised, and in this sense he echoes the original source of the notion of enclosure, put forward by Locke in his justification of enclosing the common land to 'encourage' tenant farmers and the landless to seek work in factories.

Neither Locke nor Hardin's (1968) thesis that common land should be privatized is based on empirical research. Shiva (2002) stresses that access to the commons needs to be protected. This approach is supported by Bollier and Helfrich (2012) who stress that wealth exists beyond the market place and that the environment needs to be fostered through social processes. A realisation that feedback loops based on systemic interconnections are vital to understanding risk has been raised by mainstream thinkers in sociology and economics. For example, whereas in his early books Beck (1992, 1998) writes of the 'boomerang effect' of poverty and climate change, in his later work he explicitly recognises carbon emissions and climate change and the risks they pose for people and the planet. Sir Nicholas Stern (2007) in *The Economics of Climate Change* stresses that climate change will lead to increased feedback loops that could lead to rapid warming.

Areas of overlap and the areas of separation illustrate what stakeholders consider to be acceptable and unacceptable.

By using a questioning process, community members can establish where the policy boundaries are to be drawn. Community engagement through workshops with diverse stakeholders needs to span the public, private and volunteer sectors to establish areas of agreement and areas where they will agree to disagree whilst trying to find ways forward.

The UN estimates that 71% of all human beings will be in cities by 2030 and 80% in urban areas by 2050—if current rates of urbanisation persist (United Nations 2014). High rates of urbanisation have implications for human security and most especially basic needs associated with food, water and energy insecurity and the rising cost of living. Research needs to aim to enhance understanding of the life chances and the dynamics of highly urbanised vulnerable populations and respond to the United Nations Disaster Risk Reduction platform for 2017 by focusing on non-productive urban areas that could become food deserts (Battersby 2012, 2017) that in turn pose a risk of conflict. The hypothesis is that highly urbanised regions in disaster-prone regions face food and water insecurity and are at risk of becoming food deserts unless everyday strategies are explored with service users and providers to find better pathways to resilience and wellbeing.

The symposium aimed to explore plausible regional pathways to wellbeing and resilience. Highly urbanised, environmentally affected regions have been selected in Asia (West Java) and Africa (South Africa) to address the projected scenario for 2050 when most of the global urban population will be located in Asia (52%) and Africa (21%), according to the United Nations (2014: 11). The study areas selected are significant given the predictions made by this UN report. They will be the primary focus of this study because they also face significant environmental change and are prone to droughts, floods or fires. The selection enables the research to take into account participants' culturally specific responses and perceptions of the most vulnerable single-woman (or matrifocal) households[5] on the social determinants of wellbeing and the resilience of the biophysical environment on which they depend.

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[5] Single women are statistically more vulnerable as they are without support networks.

The symposium across both sites addressed the area of concern that highly urbanised regions in disaster-prone regions face food and water insecurity and are at risk of becoming food deserts (Battersby 2012, 2017), unless everyday strategies are explored with service users and providers to find better pathways to resilience and wellbeing for the most vulnerable members of the population. We ask:

- What potential pathways can promote opportunities and redress the food and water insecurity associated with a growing population of vulnerable people in highly urbanised regions (Bollier and Helfrich 2012; Pauli 2010)?
- What can Australia contribute with partner organisations to mitigate risk (Usamah 2014) and maximise plausible pathways to resilience and wellbeing within our region? The specific cases selected for this study have been chosen to compare and contrast practical operational solutions to food and water security with less practical ones to arrive at an understanding of the relationships that support innovative practice.

Local wisdom based on lived experience or so-called tacit knowledge (Polanyi 1966, 1968) will be explored through engagement in a community of practice with NGOs and the local population, in order to develop plausible pathways through appreciation of community design to support resilience and wellbeing.[6]

My contribution to the symposium strives to enhance understanding of the life chances and the dynamics of highly urbanised vulnerable populations and respond to the United Nations Disaster Risk Reduction platform for 2017 by focusing on non-productive urban areas that could become 'food deserts' created by anthropocentric development (Battersby 2012, 2017; Crush and Riley 2017; Romm 2017). This is why we will strive to build on, explore and test existing conceptual tools in pursuit of a new methodology to assess wellbeing and resilience in single-woman households (McIntyre-Mills et al. 2014; McIntyre-Mills 2017; Saikia and Hosgelen

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[6] Resilience is defined as the adaptive capacity of the physical environment, of an individual or of a group. It concerns factors such as the capacity of members of a community to act together and to be able to modify, or even transform, existing ways of life (Rose 2005; Shiva 2012) as well as the social, economic and environmental determinants of wellbeing. According to Stiglitz et al. (2010), wellbeing spans: '1. Material living standards (income, consumption and wealth), 2. Health, 3. Education, 4. Personal activities including work, 5. Political voice and governance, 6. Social connections and relationships, 7. Environment, 8. Insecurity, of an economy as well as a physical nature'. This definition fits well with the ways in which both Indigenous and non-Indigenous populations connect with the biophysical environment and the ways in which critical systems thinkers and complexity theorists understand human interrelationships. Accordingly, the theoretical underpinnings of the project are informed through combining Nussbaum's (2011) concepts on norms and rights with Stiglitz, Sen and Fittousi's work (2010) on functioning as a multidimensional measure of wellbeing and resilience. My research addressed environmental change and vulnerability to food and water insecurity (Cruz et al. 2009, Waters 2014). The innovative research located in the Environmental Humanities is supported by partner organisations dedicated to addressing the UN Sustainable Development Goals and the challenges posed by urbanisation. The UN estimates that 71% of all human beings will be in cities by 2030 and 80% in urban areas by 2050 – if current rates of urbanisation persist (United Nations 2014). Recent work by Hay and Beaverstock (2016) illustrate that the gaps between rich and poor, the powerful and the powerless, have become wider. High rates of urbanisation together with increased poverty and wealth inequality have implications for human security and most especially basic needs associated with food and water security.

2010, 2016; Hosgelen and Saikia 2014). Significantly, the research to date hopes to contribute in terms of:

- *Focus which is on the complex needs* of the most vulnerable and the interconnections across resilience, food, water and the innovation opportunity for social inclusion and employment in sustainable housing with household green spaces and corridors to protect plants and animals on which we depend (Nussbaum 2011).
- *Policy dynamics to mitigate and adapt* to disaster-prone areas in terms of social, economic and environmental focus on what works to support resilience and regeneration in ways that respond to the intersectionality of the most vulnerable sections of the population.
- *Conceptualising and operationalising* an engagement space with participants to support mapping everyday strategies to enable human functioning (Nussbaum 2011; Sen 2005; Yap and Yu 2016) and to protect the commons (Bollier and Helfrich 2012). This will be part of the process for saturation sampling that is incremental and which scales up participation by drawing in more participants based on the first year of face-to-face data collection from a purposive sample in each of the case study regions. Given that this is definitively within the field of human rights capability and functioning, the aim is to add to the field in terms of operationalising the space for human agency (capabilities and functioning) through a community of practice approach informed by fieldwork interviews, participatory action research and focus groups. The result will be to identify pathways and strategies to add to the field of systemic design (Jones 2014; Midgley 2001) through an application of mixed methods (qualitative and quantitative) and to address human development needs (United Nations Human Development Index 2003) of the most vulnerable.

In line with the Paris Declaration (1997) and in line with the United Nations Sendai Framework for Disaster Risk Reduction (2015-2030), the aim is to address the gap in life chances and enhance social inclusion through addressing the United Nations Development Goals through developing partnerships. Our approach needs to be framed together with co-researchers based on local lived experience.

My contributions discuss the potential for more systemic, integrated living through finding key metaphors that make sense of the wicked challenges that span many interrelated problems that have a strong value dimension and which determine the extent to which we (can) make ethical decisions. Africa, Asia and Australia provide canary cases of social, demographic, economic and environmental challenges for urbanisation unless more is done to make cities sustainable.

Women and children are particularly vulnerable to the effects of migration and exploitation after natural disasters. Conceptually and methodologically, the research is at the intersection of ecological humanities, multispecies ethnography informed by a critical reading of sociology and anthropology of development (Sen 2003, 2005) and capabilities studies (Nussbaum 2011).

Transformation from Wall Street to Wellbeing (McIntyre-Mills et al. 2014) stresses the importance of rethinking economics in terms of organic and inorganic

relationships across living systems (including sentient beings, non-sentient beings and our shared habitat on which we depend). This is elaborated clearly as follows:

> Let us try to think "economy" not as a unified system or a domain of being but as diverse processes and interrelations through which we (human and more than human) constitutes livelihoods. "Economy" (oikos-habitat; *nomo*s-negotiation of order) might then become a conceptual frame or theoretical entry point through which to explore the diverse specificities of livelihood creation by a population (members of the same species) or a community (multi-species assemblage). (Gibson-Graham and Miller 2015: 12)

The potential for drawing on local wisdom is central to develop key metaphors to enhance our understanding of poverty and climate change grounded in lived experiences detailed in qualitative research. The papers aim to consider practical responses to address complex problems that comprise many interrelated variables and are perceived differently by stakeholders with different values, life experiences and different life expectancy. We need to work across conceptual and spatial sectors honouring the hybridity of all living systems through using a range of mixed methods that combine qualitative and quantitative theory generation, based on using key metaphors from people with lived experience. My work strives to foster and manage diverse situated forms of contextual knowledge (Haraway 1991, 2016)[7] and many ways of knowing, including 'verbal, visual, physical, musical, mathematical, introspective and interpersonal' (Gardner 2011 in frames of mind) and thus develop human capacity to address complex socio-environmental challenges that avoid the so-called 'population explosion' arguments underpinning some analyses such as the work of Ehrlich and Ehrlich (2013).

Overall I try to provide ideas for regenerating policy to support people and the planet. As such my work addresses metaphors and praxis for weaving together strands of experience. It extends the concept of 'wellbeing stocks', developed by Stiglitz et al. (2010: 15) to refer to dynamic ways of working with others. The bricolage or weaving together of policy depends on the context along with the teamwork spanning cultures, disciplines and methods. Innovation can be the result of cross-cultural mixed methods research in teams and the inspiration from colleagues associated with the International Society for the Systems Sciences.[8] The teamwork began through funded research in 1998 published as *Critical Systemic Praxis for Social and Environmental Justice*. The Arrernte 'caterpillar dreaming, butterfly being' story was learnt and experienced in Alice Springs in the Northern Territory leading to an ARC in 2003. Regeneration of living systems requires stewardship. This is the very opposite of development that does not honour our place within country. The story of 'Broken Promise Drive', a road built over the caterpillar dreaming site opposite the McDonald Ranges, illustrates this point. Ironically, the road is called 'Cromwell Drive'.

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[7] Donna Haraway – SF: String Figures, Multispecies Muddles, Staying with the Trouble

Donna Haraway 2016. *Anthropocene, Capitalocene, Chthulucene: Making String Figures with Biologies, Arts, Activisms* – Aarhus University YouTube https://m.youtube.com/watch?v=CHwZA9NGWg0

[8] Particularly Allena Leonard who introduced me to Donna Haraway and Alexander Christakis who in turn inspired my collaborator Denise De Vries

It provides the central theme for this symposium and echoes a plea made by Banathy (1996) who strives for transformative thinking; rather than make caterpillars go faster, we need new ways of being. This is the 'yeperenye' or butterfly potential that we need to foster.

I conceptualised and facilitated research in South Australia with Neporendi on complex needs and wellbeing leading to an Australian Research Council Grant to address complex health housing and social inclusion and scaling up the research with other small grants including a local government grant.[9] In my paper, the case is made that all three of these approaches have a role to play and that they can be seen to be supported by a mixed methods approach (Romm 2018).

The concept of multiple methods and mixed methods helps to locate the approach of expanded pragmatism for ethical thinking and practice, moreover, to identify pathways towards ethical vocational education to enable lifelong engagement by active citizens that requires action learning to address areas of perceived policy concern.

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[9] McIntyre-Mills, J. with De Vries and Binchai, N. 2014. *Transformation from Wall Street to Wellbeing: Joining Up the Dots Through Participatory Democracy and Governance to Mitigate the Causes and Adapt to the Effects of Climate Change*. Springer, New York, 253pp. ISBN 978-1-4899-7465-5

McIntyre-Mills, J. 2014. *Systemic Ethics and Non-Anthropocentric Stewardship: Implications for Transdisciplinarity and Cosmopolitan Politics*. Springer, New York, 270pp

McIntyre-Mills, J. with De Vries, D. 2011. *Identity, Democracy and Sustainability: Facing Up to Convergent Social, Economic and Environmental Challenges*. Litchfield Park, USA. ISBN 97 80984 216536. Pp. 331

McIntyre-Mills, J, 2008. *User-centric design to meet complex needs*, New York: Nova Science. 423-page book

McIntyre-Mills, J. 2006 *Systemic Governance and Accountability: Working and Re-Working the Conceptual and Spatial Boundaries*. Volume 3: *C. West Churchman Legacy and Related Works Series*. 434 pages. Springer, London. Tier 1 (Queensland University Publications Index). It has been described, for example, as 'essential reading and filled with valuable insights' by Professors Christakis and Romm (2008) in *Systems Research and Behavioral Science*, Vol. 25, pp. 141–2.

McIntyre-Mills, J. 2003. *Critical Systemic Praxis for Social and Environmental Justice. Participatory Policy Design and Governance for a Global Age.* The Contemporary Systems Series. Kluwer, London. Tier 1 (Queensland University Publications Index) (Google Scholar). This book extends critical systems thinking and practice from the organisational to the broader community and regional context and combines critical systems thinking and practice with participatory action research. It provided the basis for ongoing research in support of integrated approaches spanning the public, private and non-government organisations to addressing complex needs. It advances an understanding of the systemic links across high morbidity and mortality rates with high rates of social inequality.

McIntyre-Mils, J. 2000. *Global Citizenship and Social Movements: Creating Transcultural Webs of Meaning for the New Millennium*. The Netherlands, Harwood. This book discusses the need for a form of education, democracy and governance that addresses convergent social, economic and environmental problems. Review articles have been written in *Systems Research and Behavioral Science*, Vol. 19, pp. 383–7 in 2002 by Professor van Gigch (Engineer and Systems Scientist, University of California) and by Professor Romm, *Journal of Sociocybernetics*, Vol. 4, No. 2, 2003, pp. 39–40 (Sociologist), Professor Jamrozik (Sociology and Social Work, Flinders University source, cover of book) and Professor Cain (Wisconsin, Plant and Earth Sciences, cover of book). Respectively, they say it has 'advanced sustainable approaches', 'advocates new thinking and restructure', 'lays the groundwork for changes' and achieves 'integrated theory and a new praxis'.

There is evidence that many non-Aboriginal people desire more environmentally sustainable lives, but little is known about the influences on choices around the management of land, water and food that affect the environment. Government response to human wellbeing is often based on economic development, which inadvertently increases consumerism, resulting in greater environmental degradation.

We know, therefore, that environmental sustainability, consumption choices and human wellbeing are intimately linked, but there is little knowledge about how this linkage can be built upon to improve both areas. Consumption based on living simply and ethically and well versus consumerism to express status is very different. Zavestoski (2002) has stressed the voluntary simplicity movements (Alexander 2011) such as post-materialism, slow living, eating local food, reducing energy usage, reusing and recycling only tend to occur when status needs have already been met. Paradoxically some of the changes become status-driven consumerism that can appear to be simple but often lead to change for the sake of appearance (Binkley 2008) and do not lead to greater levels of happiness. Wellbeing and resilience are viewed through the lens of user-centric policy design to address food, energy and water security in Alice Springs and Adelaide to frame what works, why and how from diverse perspectives.[10]

Multiple and mixed methods research can be conducted across the full spectrum of approaches with varying emphasis depending on one's assumptions, values and area of concern. My own research is informed by all these approaches, but I am not aligned to the foundationalist approach, although I strive for better decisions through testing out ideas through enabling each of the participants to speak and trying not to frame them in terms of any theory so as to allow surprise rather than finding what we assume we will find because of theoretical assumptions.

When I studied social anthropology with Martin West at the University of Cape Town, this was stressed as the first lesson in better fieldwork. The cautionary tale of two social anthropologists studying the same area in Tepoztlan, Mexico, is a case in point (see Crichtfield 1978).

One framed his research in terms of Marxist lenses and the other in terms of structural functionalist lenses. The findings by Redfield and Oscar Lewis were very different! Lewis stressed the miseries of poverty and the competition for resources,

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[10] The design of inquiring systems (DIS) is a process that builds on West Churchman's work (1971, 1979, 1982) to enhance our capability to work with many different kinds of knowledge. It is a means to enable us to 'think about our thinking' and our practice and to enable us to 'join up the dots'. It applies dialogue to consider ideas with stakeholders through asking questions in order to unfold ideas and values and to sweep in the social, cultural, political, economic and environmental factors. West Churchman's student Werner Ulrich has design 12 questions which focus on what is the case and what ought to be the case, in order to guide better decisions. The stakeholders and the environment of the problem are considered carefully in the questioning process. Ulrich and Reynolds (2010) distils the work of West Churchman's DIS approach into 12 is/ought to question that help to shape boundary judgements when working with stakeholders and different kinds of knowledge (logic, empiricism, idealism, dialectic and pragmatism), but it does not go far enough. In my papers I will mention canary cases and the frying pan – of rural hunger and thirst – and the risk of mass urbanisation–where people face the fire of destitution, unless more is done to make cities sustainable.

and Redfield stressed the harmonious aspects of peasant life from a structural functionalist perspective. However, they were both anthropocentric and to some extent less focused on gender in their approach.

Locating Expanded Pragmatism Within the Multiple and Mixed Methods Discourse

The methods I have used in combination have been to address an area of concern in terms of considering the consequences of choices with participants in order to gain a better understanding of the participant's perceptions based on listening and exploring their experiences and their questions through 'unfolding values' and 'sweeping in' social, cultural, economic and environmental factors, to draw on West Churchman (1982).

Sometimes only emotional instinct can lead one to make connections. I have tried to convey this through photographs. Research requires linking with others at many levels, earning and maintaining trust. At the end of the day a healthy dose of humility is required to appreciate that no matter how hard we try, we may not succeed in 'representing truth', but we may succeed in 're-presenting the voices of others' or trying to raise to awareness the rights of all sentient beings to a life worth living (Nussbaum 2011). This is the point made by Hesse-Biber (2010). Nevertheless, my approach to expanded pragmatism tries to find the most plausible pathways based on weighting the perceptions of many participants, until a sense of saturation is achieved in terms of an area of concern. Ongoing data collection through digital engagement that empowers end users may be a way forward to develop big data that can be monitored by rights-based groups in the interests of social and environmental justice, as opposed to their metadata just being used to develop algorithms for control and profit.

Research engagement can include many ways of connecting—from in depth conversations augmented by drawings, art work or acting out sociodramas of relationships between doctors, nurses and patients in Valkenberg Hospital for the mentally ill to poetry. The poem My Town by Olive Ververbrants (in McIntyre-Mills 2003: ix-xi) is perhaps one of the best examples of this approach, and it provides the focusing shot for a book on life chances in Alice Springs.

How can we increase engagement in the environment that balances individual and collective wellbeing and simultaneously protect people, sentient beings and the environment when we know so little about this nexus? How to encourage people to reduce consumption in ways that protect both people and the planet is the policy and governance conundrum that needs to be informed by understanding diverse representations of consumption.

The hypothesis is that participation through awareness and consciousness-raising about ethical (a) food, energy and water consumption and (b) the ways in which people value other species and the environment (McIntyre-Mills 2010) will influence the extent to which the United Nations SDGs are implemented, revised and extended to include regeneration. This hypothesis is based on the notion of neural

plasticity in that the brain shapes the environment and, in turn, is shaped by social and environmental factors (Bateson 1972; Greenfield 2000).

My work has focused the implications of urbanisation, loss of territory, loss of species and the implications for living systems of which we are a strand. At a practical level it has addressed wicked policy problems including creating jobs by building tanks and latrines to prevent water and sanitation-related disease.

The papers from the symposium strives to look at the so-called blue economy and methodologically to address the inter/trans-cross-disciplinary theme. Pauli's visionary ideas could be extended by drawing on examples of projects using gender analysis, mainstreaming, participatory action research and engagement processes to enhance representation, accountability and regeneration of social, economic and environmental resources. The research programme spanning research in South Africa, Australia and in a range of contexts as a sole, joint researcher or facilitator is detailed in books that are summarised below. Much of my work in recent years has been a facilitator of research as a PhD supervisor:

Multiple Perspectives on 'Health, Healing and Disease' in South Africa

An introduction to binary oppositions of us/them came about through my first research project as an honour student at the University of Cape Town. I was asked by the chief psychiatrist to do research to address the spike in schizophrenic patients who were being diagnosed and admitted to Valkenberg Hospital for the mentally ill. The issue was that people with a host of poverty-related illnesses described their condition as Intwaso, being called by the ancestors. Biomedically trained Xhosa nurses translated literally, to enable patients to access care and a square meal. Many of the patients also had symptoms of TB, endemic in the population. This was because many were HIV positive.

I reframed the approach used at the hospital to address the needs of people living in Guguletu (Section 3) and networking out to the so-called homeland area of Transkei to follow the network of one set of migrants to understand their life chances and the context of pass laws and migration in South Africa. The lesson I learnt was the need to locate illness within the social, cultural, political, economic environment (McIntyre-Mills 2000; McIntyre-Mills 2004).

Mixed methods can be used sequentially starting with qualitative methods and in combination with quantitative methods. It can also be used concurrently. Qualitative and or quantitative methods can be used to triangulate/extend views to gain a more comprehensive representation. Or qualitative and quantitative methods can be used for contrast.

Research is perceived differently depending on one's assumptions and values about the nature of reality, what constitutes knowledge and how one should go about working with people to address areas of concern. The ethical orientation taken in this volume is based on a critical and systemic approach rooted in an expanded

form of pragmatism which considers the short-, medium- and long-term implications of decisions for people and the planet.

My approach is one of bricolage to address areas of policy concern with those who will be affected so as to enhance social and environmental justice for people and the planet.

As such, it addresses all of the following options that are considered porous rather than rigidly compartmentalised. The flow of dialogue across researchers concerned about the social and environmental justice implications of their decisions has resulted in ongoing development of the approaches. Although the debate is not over about what constitutes research, the place of mixed methods is firmly developed in the literature (Hesse-Biber 2010, 2017; Mertens 2016; Romm 2018) (Table 2.2):

The critical systemic approach takes into account many diverse ways of seeing and tries to find common themes that could underpin 'lives worth living', based on testing out ideas with those who are to be affected by the decisions and mindful of future generations of life (including sentient beings). This is a form of expanded pragmatism based on mindful decision-making in the interests of living systems of which we are a strand (McIntyre-Mills 2017).

We need to respond to systemic socio-demographic, cultural, political, economic and environmental challenges and the different needs of age cohorts in developed and developing and less developed parts of the world. Harper (2016) stresses that population change is below replacement levels in many parts of Europe where the population profile is one of low fertility and low mortality. So population change

Table 2.2 Working across the range of options

Post-positivist approach (PP)	Constructivist approach	Expanded pragmatism	Indigenous paradigm	Transformative paradigm (see Mertens 2010, 2016, 2007)
Post-positivism PP does not mirror reality, it strives to understand that different stakeholders will have different constructs of reality and it will strive to mirror the diversity of views as closely as possible	Represents truth of the diverse stakeholders (Hesse-Biber 2010)	Closest we can get to truth is through dialogue and testing out ideas with people (McIntyre-Mills 2017)	Nature is vitally important, and human beings are part of the natural world and return to it. History is written into the landscape as a result of choices made	Ontology is based on the notion that research has a purpose, and thus social and environmental justice shape the way the research is designed

Sources: informed by Romm (2018). Responsible Research Practice: Revisiting Transformative Paradigm in Social Research. Cham, Springer, Chapter 9. A version of the table (without the indigenous paradigm) first appeared in: Mertens, D.M. (2015). Research and evaluation methods in education and psychology. Fourth ed. Thousand Oaks, CA: Sage. Mertens, D. 2007 *Mixed methods design in evaluation*. Sage. London. Mertens, DM and Wilson, A.T. *Program evaluation theory and practice: a comprehensive guide*. New York. Guilford Press. Hesse-Biber, S. and Johnson, B. 2015 *The Oxford Handbook of Multimethod and Mixed methods Research Inquir*y. Oxford UK. Oxford University Press

needs to be viewed in terms of ballooning and shrinking populations. Added to this the life chances of young people need to be understood in different parts of the world:

- Baby boomers (aged 36–55) have experienced very different life chances. In some developed countries, they have more opportunities to save and plan for the future.
- Generation X (aged 24–36) have had far more difficulties, because of less full-time and permanent positions, whilst the Generation Y (aged 5–24) will face the challenge of learning new skills, in order to remain relevant as designers, because their work will become increasingly programmed; automated and short-term contracts, rather than full-time employment, are the norm.
- Generation Z (under 6 born after 1995) will face a world where climate change could impact quality of life in ways that are currently unforeseen, unless they can ensure that food, energy and water security are addressed in ways that protect habitat for all species.

We have the following options, namely, a technocratic response to poverty based on growing the size of the pie. This is problematic because it denies values and power. Alternatively, policy and practice could respond to poverty critically and systemically by redesigning the pie and the way it is distributed. The latter could involve changing what, why and how we value the fabric of living systems and understanding our collective regional responsibilities.

Praxis in this volume advocates working across all three with a focus on critical thinking and changing attitudes to achieve transformation. One of the starting points is to think about what 'decolonising the mind' could and should entail. What does it require in order to rethink our relationships with one another and in relation to the land and waters on which we depend and to which we return at the end of our life cycle?

Decolonisation of the Mind: Metaphors, Memory, Icons and Identity

The 'decolonisation of the mind' (Shiva 2012)[11] is just a starting point for realising our proper place in the web of life. History, her story and the story of multiple species are needed to set the balance right to ensure that many voices are heard. Stan Grant has made a plea, recently that as Australians we remember the colonial heritage of occupation.[12]

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[11] In essence this means that instead of assuming that we have all the answers, we need to work collaboratively. This is the starting point for decolonisation. This has been addressed in *Planetary Passport* (McIntyre-Mills 2017).

[12] http://www.abc.net.au/news/2017-08-25/stan-grant-captain-cook-indigenous-culture-statues-history/8843172

The debates that do not even begin to scratch the surface of these issues are merely indicative of much more wide-ranging issues. Should statues to colonial leaders be left in public places where they can offend? Kelly (2017) wrote a commentary for the Australian[13] "let us not squander the chance to make better history" in which he laments that Australians may miss the chance to do better by listening to the Uluru statement. He asks: "Who knows about Tunnerminnerwait and Maulboyheenner?"

He then asks the question as to whether memorials could help to raise awareness of their resistance to occupation and whether this could help Australians to understand the meaning of this day for Indigenous Australians. Perhaps a national celebration could be moved to another day—after a new Aboriginal representative council has been formed, so that all Australians can celebrate the birth of a new more democratic nation? The ABC has posed the question as to whether explainers associated with each old colonial statue could be used for educational purposes and whether the standpoint of the First Nations could be provided as a counterpoint to the colonial version of history. New statues to the heroes of resistance need to be raised to respect the original Australians in order to achieve a greater understanding of the meaning of occupation and how Tunnerminnerwait and Maulboyheenner were hanged for their resistance.

The recent rejection of the Uluru statement is considered 'a kick in the guts for Aboriginal Australians', according to Noel Pearson (2017a, b):

the Uluru statement of the heart rejected mere symbolism
That the government will now pursue it against Indigenous wishes shows how badly first nations need a constitutional voice.

Perhaps Australians need to learn from history so they do not repeat its mistakes. Inscriptions on statues do matter, because they could raise awareness so that the plea made at Uluru is honoured as a step towards reconciliation. This is an issue that has received media attention in the wake of the conflict over the removal of statues of confederate leaders (who supported slavery in the Southern States of America).[14]

The massacres of Aboriginal Australians have not been a focus of attention.[15] But the statues of leaders have become a starting point for acknowledging the truth of the colonial wars and the extent of Aboriginal lives lost not only in the 150 massacres recorded by the Newcastle University project but also through the many direct and indirect murders that have not been recorded. The repatriation of artefacts and remains are another aspect of colonial legacies that need attention 'lest we forget':

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[13] 26–27th *The Weekend Australian*, page 22

[14] These statues have been used as rallying points for white nationalism in the USA. Their loss has been criticised by 54% of Americans. If statues are not lost but merely decentred through being placed in museums, then history could be explained, and public education could be served. See https://www.theguardian.com/global/video/2017/aug/22/battle-over-confederate-statues-united-states-video-explainer.

[15] https://www.theguardian.com/australia-news/postcolonial-blog/2017/jul/07/red-dots-spatter-wall-of-great-australian-silence-over-blackwhite-frontier-violence

Newcastle University this week unveiled the first phase of <u>an online Australian map that, using strictly formulated evidentiary criteria, plots massacres</u> (the orchestrated killings of six or more people) between 1794 and 1872. So far the research, led by Lyndall Ryan, has focused on the continental south-east including Tasmania (the areas that hosted most of the earliest violence) and has chronicled about 150 massacres." (see University of New Castle website)[16]

The Australian Broadcasting Corporation's report on Tunnerminnerwait and Maulboyheenner stresses that Australians be made aware of truths that ought not to be buried.[17]

In South Africa the removal of the statue of Rhodes from its central position opposite Jameson Hall has been highlighted as a step towards decolonising University of Cape Town.[18] Max Price, the VC of UCT, mentioned the colonial legacy of UCT in an inaugural speech of a sociology professor. He stressed at an interdisciplinary symposium that voices that have not been heard need to be given the space to be heard and colonial versions need to be decentred. But the issue of the need to decolonise education remains on the agenda.

The statue of Colston who made his money from the slave trade with Africa remains at the heart of Bristol, despite protests over the years.[19] The history of slavery underpins the wealth of Bristol along with many other seaports and the families who shored up wealth from the proceeds of the inhumane trade. The central location without a discussion of the context of slavery is more than problematic, as I have discussed elsewhere (McIntyre-Mills 2017).

Whilst the statue of Rhodes has been decentred, the statue of Colston (who made his money from the slave trade with Africa) remains at the heart of Bristol despite protests over the years.[20] In Australia the recent articles by Paul Daly have led to much needed debate.[21] But it should not deflect attention from the need to remember history so that we learn from the past.

Intra-, Inter- and Cross-Disciplinary Approach

The collection of papers in this volume on conflict, dispossession and loss of land (past and present) uses multiple and mixed methods to address the area of concern. The papers can be read as stand-alone chapters or as a collection.

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[16] https://c21ch.newcastle.edu.au/colonialmassacres/map.php

[17] http://www.abc.net.au/news/2014-01-20/tunnerminnerwait-and-maulboyheenner/5209006

[18] http://www.bbc.com/news/world-africa-32236922
https://www.theguardian.com/world/2015/apr/09/university-cape-town-removes-statue-cecil-rhodes-celebration-afrikaner-protest#img-1

[19] https://www.theguardian.com/uk-news/2014/jun/09/edward-colston-bristol-statue-slavery

[20] https://www.theguardian.com/uk-news/2014/jun/09/edward-colston-bristol-statue-slavery

[21] https://www.theguardian.com/australia-news/postcolonial-blog/2017/aug/25/statues-are-not-history-here-are-six-in-australia-that-need-rethinking

Planetary environmental changes associated with increased risk of drought and consequent food, energy and water insecurity are not unique events. They are perennial and pose an 'existential risk' (Bostrom 2011). Globally, women, children and vulnerable members of the population are most likely to encounter water and food insecurity in disaster-prone regions (Figueres 2015) and face complex health, housing and social inclusion needs. Since the *Stern Review on the Economics of Climate Change* (2006), little has been achieved in terms of mitigating the rate of warming. Burns and Simmons (2006) and Finn (2016) highlight the global and regional risks associated with the effects of climate change on the most vulnerable. The border protection mentality, such as 'America First', is becoming more prevalent globally, but human trafficking, disaster and climate change are transnational issues that require a big picture approach. This paper provides an overview of the symposium and gives a sense of the key points made across the papers provided to date.

The symposium at Flinders University and the University of Padjadjaran in West Java[22] explored the challenge of increased urbanisation and movement towards cities[23] and the implications it has for the life chances of unemployed women who become increasingly vulnerable to trafficking. Papers to address the themes have been grouped in volumes 1 and 2. One of the common themes from the multisite symposium (on which these volumes are based) is the need to protect the land and to prevent exploitation of people and living systems and to find ways to protect food, energy and water security through caring for the living systems of which we are a strand. It aimed to explore plausible regional pathways to wellbeing and resilience. In line with the Paris Declaration (1997), public administration needs to be framed together with co-researchers with local lived experience.

Highly urbanised, environmentally affected regions were selected as so-called canary cases in Asia (West Java) and Africa (South Africa) to address the projected scenario for 2050 when most of the global urban population *will be located in Asia (52%) and Africa (21%)*, according to the United Nations (2014: 11). These areas are significant given the predictions made by this UN report. They will be the primary focus because they also face significant environmental change and are prone to droughts, floods or fires. The selection enables the research to take into account participants' culturally specific responses and perceptions of the most vulnerable on the social determinants of wellbeing and the resilience of the biophysical environment on which they depend.

Highly urbanised regions in disaster-prone regions face food and water insecurity and are at risk of becoming food deserts unless everyday strategies are explored

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[22] This symposium is linked with partnership development in Indonesia. UnPad (University of Padjadjaran) is co-hosting the symposium.

[23] In Indonesia the rate of urbanisation is faster than other Asian countries. According to the World Bank: "Indonesia is undergoing a historic transformation from a rural to an urban economy. The country's cities are growing faster than in other Asian countries at a rate of 4.1% per year. By 2025 – in less than 10 years – Indonesia can expect to have 68% of its population living in cities". http://www.worldbank.org/en/news/feature/2016/06/14/indonesia-urban-story

to find better pathways to resilience and wellbeing for the most vulnerable members of the population. We ask:

1. What potential pathways can promote opportunities and redress the food and water insecurity associated with a growing population of vulnerable people in highly urbanised regions where informal housing areas predominate (Bollier and Helfrich 2012; Pauli 2010)?
2. What can Australia contribute with partners University of Padjadjaran, Wirasoft and Universitas Sultan Ageng Tirtayasa to mitigate risk (Usamah 2014) internationally and maximise plausible pathways to resilience and wellbeing within our region? The specific cases selected for this study have been chosen to compare and contrast practical operational solutions to food and water security (with associated high-energy costs) with less practical ones to arrive at an understanding of the relationships that support innovative practice. Local wisdom based on lived experience or so-called tacit knowledge (Polanyi 1966, 1968) will be explored through engagement in a community of practice with NGOs and the local population, in order to develop plausible pathways through appreciation of community design to support resilience and wellbeing.[24]

The volumes together address environmental change and vulnerability to food and water insecurity (Cruz et al. 2009, Waters 2014). The research detailed in this volume is supported by partner organisations dedicated to addressing the UN Sustainable Development Goals and the challenges posed by urbanisation. The UN estimates that 71% of all human beings will be in cities by 2030 and 80% in urban areas by 2050—if current rates of urbanisation persist (United Nations 2014).

Recent work by Hay and Beaverstock (2016) illustrate that the gaps between rich and poor, the powerful and the powerless, have become wider. High rates of urbanisation together with increased poverty and wealth inequality have implications for human security and most especially basic needs associated with food and water security.

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[24] Resilience is defined as the adaptive capacity of the physical environment, of an individual or of a group. It is linked with regenerating and maintaining the social, economic and environmental determinants of wellbeing. According to Stiglitz, Sen and Fittousi (2010), wellbeing spans: '1. Material living standards (income, consumption and wealth), 2. Health, 3. Education, 4. Personal activities including work, 5. Political voice and governance, 6. Social connections and relationships, 7. Environment, 8. Insecurity, of an economy as well as a physical nature'. This definition of wellbeing corresponds well with ways Indigenous and non-Indigenous populations connect with the biophysical environment and how critical systems thinkers and complexity theorists understand human interrelationships and dependency on other living systems (Wadsworth 2010). Accordingly, the theoretical underpinnings of the project are informed by Nussbaum's (2011) concepts on norms and rights combined with Stiglitz, Sen and Fittousi's work (2010) on functioning as a multidimensional measure of wellbeing and resilience. These studies provide a valuable lens for understanding the intersection of ecological humanities and ethics (Bird Rose, McIntyre-Mills 2017), demographics and multispecies ethnography informed by a critical reading of sociology and anthropology of development (Kovach 2009) and capabilities studies (Nussbaum 2011, Sen 2003).

The systemic focus of my research builds on the body of work developed in the Contemporary Systems Series (McIntyre Mills et al. 2017 and McIntyre-Mills 2017). It is based is on being mindful of the need to design policy that supports living systems (Wadsworth 2010). 'Ecological citizenship needs to ensure that the requisite variety (Ashby's 1956) is extended beyond consideration of anthropocentric systems to non-anthropocentric living systems, to ensure that stewards protect habitat. The research seeks a better balance across social, cultural, political, economic and environmental interspecies concerns to ensure a sustainable future for current and future generations.

My research strives to show how existing policies can be creatively combined so that their liberative potential can be achieved in a national, postnational, regional context.[25] It draws on the Global Covenant idea (Held 2004), Aarhus Convention (Florini 2003), UN Local Agenda 21(1992) and the Paris Agreement on Climate Change (2014) providing the policy background for the approach along with the United Nations Declaration on the Rights of Indigenous Peoples (2007) which provides one of the ways in which First Nations can (try) to protect habitat by achieving self-determination over a geographical area.

Little and McMillan (2016) provide a summary of the constitutional changes that have been discussed to date. They conclude that the changes need to be more fundamental and less symbolic.

If we look at the examples from Finland, Sweden and Norway we can see that the Indigenous people obtained a voice in parliament in Finland in 1989 and then in Sweden and Norway in the 1990s and in Russia in 2008, nevertheless, it does not really go far enough to meet their need to protect the environment for their livelihood.

A critical review shows that their power to invoke the UNDRIP can be curtailed. This is of relevance when protecting habitat for reindeer or fishing or hunting.

The treaties with First Nations in the USA have resulted in a recognition of territory, according to Maddison (2016):

> The power of native treaty rights is reinforced by the significant recognition of the nation-to-nation relationship between Indian tribes and the federal government contained in the US Constitution. Article 1, section 8, clause 3, which relates to the powers of Congress, says: The Congress shall have Power … To regulate Commerce with foreign Nations, and among the several States, and with the Indian Tribes.

> This clause is widely interpreted as recognising a form of enduring sovereignty, given the other entities acknowledged in it are US states and foreign nations. And it has provided

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[25] In *Transformation from Wall Street to Wellbeing* (McIntyre-Mills et al. 2014) and in *Planetary Passport* (McIntyre-Mills 2017), we strive to show how small-scale interventions could be used to achieve a better balance across social, cultural, political, economic and environmental interspecies concerns to ensure a sustainable future for current and future generations. The ecological citizen uses a 'planetary passport' to track the distribution and redistribution of resources in the interests of social and environmental justice. Engagement links high-level challenges with individual perspectives, facilitating nuanced investigation of the complex ethical challenge of closing the gap in life chances. The focus is on protecting 'wellbeing stocks' a concept adapted from Stiglitz et al. (2010: 15) to refer to a multidimensional measure of wellbeing.

Fig. 2.1 Montreal: photo taken in the Mohawk region in 1998 as part of a conference tour

important benefits to many native peoples. It's evident, though, that there are differing levels of capacity to leverage these benefits among the 566 federally recognised tribes

Maddison goes on to explain what was augmented by a silent written apology by Obama:

"signed into law by President Barack Obama, buried on page 45 of the 67-page Defense Appropriations Act 2010."

This may have been a strategy to get something passed in a difficult political environment, where racism remains an issue as the current tweets by Trump on the violence associated with the protests against the removal of confederate leaders who supported slavery in the Southern States demonstrated. The resignation of black business leaders from Trump's business councils is just one indicator of the depth of concern about the racist links of some of Trump's supporters.[26] Prior to his election he met with some of the white nationalists associated with the KKK.

In Canada where Montreal has ceded space to Mohawks, some of the non-Mohawk relations were expelled. They reacted with accusations of racism. But when I visited the area with a group of women in 1998 as part of the International Sociology Conference, we were told of how women tried to control family violence through strong associations (Fig. 2.1).

New Zealand is also often held up as an example for Australia, because New Zealand has a treaty that is preferable to not having a treaty even if the treaty of Waitangi was signed by only some of the Maori chiefs. These chiefs had a very

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[26] http://www.abc.net.au/news/2017-08-17/donald-trump-charlottesville-remarks-business-councils-disbanded/8815146

different idea of the use of land, and it certainly did not involve handing over power to the British. Nevertheless, the treaty provides a better starting point for the ongoing process of ensuring that Maori voices are heard through participatory democracy.

Ongoing democratic engagement is needed to restore social justice through truth and reconciliation. The current efforts by local councils in Australia to acknowledge First Australians on Australia day could be seen as a step in the right direction, despite the reactions by Federal Government (Wahlquist 2017). Then perhaps an overarching parliament or replacement for Australian and Torres Strait Islander Committee could co-ordinate state representation as an advisory group/parliament to government. This is needed as ATSIC (founded in 1989 and disbanded in 2005 by the Australian government). The reasons have varied from posing a challenge to state (federal) sovereignty to its overall ineffectiveness. The result of disbanding it was to set Indigenous representation and accountability back decades and well behind New Zealand, Scandinavia and Canada.

The longer Australia takes to make concessions to First Nations the more they will have to apologise for the lack of recognition. The role of First Nations in resisting invasion has been an aspect of history on which Australians have been silent.

The extent of the slaughter has been a subject of historian's research. If the combined frontier wars and deliberate acts of poisoning of water holes are taken into consideration along with the structural violence on a daily basis waged by law enforcers and those operating outside the law (but with the connivance of authority), then it could amount to a significant proportion of the First Nation. The exposure to illnesses would also have extended the mortality and morbidity rates so that the total amounted to something close to a form of genocide.

Another little known area is the extent to which labour relations were shaped by the Gurindji pastoralists. The documentary entitled 'Unlucky Australians'[27] details the 1966 walk-off from the land farmed by Lord Vestey.

The story is pivotal in the history of Australia as it showed the fortitude of the Gurindji pastoralists who decided to set up their own cattle industry on their own land. The Vestey mob however continue to run their beef business in many other parts of the world. The UNDRIP (2007) was belatedly recognised by Australia, and despite the fact that it is only a declaration and not a law, it still provides some basis for giving a platform to Indigenous people internationally.

Why is the distinction between ethnicity and Indigeneity vital in other parts of the world, and why is the UNDRIP so relevant? The UNDRIP enables people to define themselves and to make a plea for self-determination with the support of the UN to be recognised internationally as an Indigenous group at risk of losing their human rights. This entails political recognition as opposed to merely being an ethnic group with minimal or no rights within a nation state.

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[27] See the documentary and *The Guardian* news articles on their exploits http://www.abc.net.au/tv/programs/unlucky-australians/.

Rohingya Persecution and Displacement

Rohingya have been subject to ethnic cleansing by nationalists in Burma and are less than welcome in Bangladesh, which is one of the poorest and most populous nations. It is also one of the most affected by climate change and flooding. On its borders a humanitarian crisis has been unfolding since 1982 when Burma removed the citizenship rights of the Rohingya. The silence of Aung San Suu Kyi is perhaps the biggest disappointment.[28]

Wirathu, a bigoted 'rogue' Buddhist monk, made a statement that he was pleased that Trump had been elected as nationalism would become more acceptable.[29] The recognition of the Rohingyas as an Indigenous group could make a difference to protecting their human rights, and Bishop Desmond Tutu has expressed that the treatment of the Rohingyas is indefensible.

The Rohingya argue that they are Indigenous people and they have rights. They are a minority group but are persecuted because of historical antipathy in the regions that were colonised by the British and then the Japanese during the Second World War.

They are portrayed as people who worked for the British and have no long-standing rights in Myanmar. But this is disputed historically. They suffer ongoing persecution that is escalating to genocide,[30] and the Pope has announced that he will visit to provide support. So far, the Nobel Peace Prize winner Aung San Suu Kyi has been criticised for doing nothing. Some of the Rohingyas portray themselves as an ethnic group who has lived in the western region of Myanmar called Arakan region for centuries. Others say that they are newcomers who arrived as labourers from India. According to Nemoto (2004: 1):

> Though the naming of "Rohingya" seems to have come about only recently (around the beginning of 1950s), the Muslims in Arakan have a long history since the beginning of the Mrauk-U dynasty (1430-1785) of the Arakan Kingdom. … However, since Arakan and Tenasserim were occupied by the British after the First Anglo-Burmese War (1824–1826), the confrontation between the Muslims residing in the northwestern part of Arakan and the Buddhists as the majority in central and southern Arakan became tense, because a large scale Indian immigration was encouraged by the British...

The total number worldwide makes up to 1.5 million according to a recent study (Mahmood et al. 2016), and 1 in 7 of the displaced global population is Rohingya. They were deprived of citizenship status in 1982 and are regarded as foreigners. Their situation has worsened, and understandably they are now defining themselves as an ethnic minority who is persecuted and who claim Indigenous people's rights. They say that many have lived in the area of Arakan for centuries. Mahmood et al. (2016: 1841) stress:

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[28] https://www.theguardian.com/world/2017/sep/10/aung-san-suu-kyi-myanmar-rohingya-human-rights

[29] http://www.scmp.com/news/asia/southeast-asia/article/2047276/anti-muslim-buddhist-monk-ashin-wirathu-myanmar-says-trump

[30] This is evident by watching news footage downloaded on 21 Sept 2017 on a site linked with *The Guardian* newspaper. Please view the video at https://m.youtube.com/watch?v=5C8ZVweZYio.

Whether the Rohingya people are native to Myanmar is contested. Supporting the Rohingya claim is a 1799 report by the Scottish physician Francis Buchanan, who spent 15 years in the region. A quarter-century before Britain's 1826 conquest of Burma, Buchanan documented that Arakan was also known as 'Rovingaw', among 'Mohammedans', who have been long settled in Arakan, and who call themselves Rooinga, or natives of Arakan.

Media pictures show the extent of the displacement. Villages burn, and people flee on foot with very little other than their lives and those who need to be carried.[31] It is estimated that in September more than 300 000 people have been displaced.[32]

The visit of the Pope to both Myanmar and Bangladesh is an attempt to bring the attention of the world to the current genocide and the need for leaders to face up to their responsibilities.

Ways Forward Social Inclusion, Agency and Regeneration of Shared Habitat

Women and children are particularly vulnerable to exploitation after natural disasters. Conceptually and methodologically the research is at the intersection of ecological humanities, multispecies ethnography informed by a critical reading of sociology and anthropology of development (Sen 2003, 2005) and capabilities studies (Nussbaum 2011).

Significantly, the collection responds to complex ethical policy challenges posed by the Paris Agreement and the UN Sustainable Development Goals, in order to narrow the gap in living standards between rich and poor. Policy choices made by this generation shape the wellbeing of both current and future generations. The outcome could be a better understanding of socio-cultural discourses, life chances and behaviour to inform policy and to improve public administration by learning what does and does not work and why from the most vulnerable populations.[33]

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[31] https://www.theguardian.com/global-development/2017/sep/14/myanmar-new-footage-reveals-scorched-earth-campaign-against-rohingya

[32] https://www.theguardian.com/global-development/2017/sep/15/humanitarian-catastrophe-unfolding-as-myanmar-takes-over-aid-efforts-in-rakhine-state-rohingya

[33] *Transformation from Wall Street to Wellbeing* (McIntyre-Mills et al. 2014) stresses the importance of rethinking economics in terms of organic and inorganic relationships across living systems (including sentient beings, non-sentient beings and our shared habitat on which we depend). This is elaborated clearly as follows:

Let us try to think "economy" not as a unified system or a domain of being but as diverse processes and interrelations through which we (human and more than human) constitutes livelihoods. "Economy" (oikos-habitat; *nomos*-negotiation of order) might then become a conceptual frame or theoretical entry point through which to explore the diverse specificities of livelihood creation by a population (members of the same species) or a community (multi-species assemblage). (Gibson-Graham and Miller 2015:12)

This collection of papers will integrate data on health, housing and social inclusion and could provide improved understanding of how to manage complex needs based on mixed methods (Hesse-Biber 2010; Mertens et al. 2013. Mertens 2016) so as to address complex health housing and social inclusion needs. It aims to critique governmentality (Foucault and Gordon 1980) and the

The collection explores wellbeing in terms of the relationship between functioning and capabilities (Sen 2000, Nussbaum 2011) by enhancing space for social inclusion and recognition of both diverse standpoints on wellbeing as well as shared meanings.

The engagement approaches addressed in the papers include the so-called systemic intervention defined as addressing specific areas of concern in specific contexts. Midgley (2017) defines it as:

"Purposeful action by an agent to create change in relation to reflection upon boundaries".

It is only a means to remind and regenerate connections. It is not an end in itself.

We face convergent social, economic and environmental challenges that require reframing by visionaries who lead and do not follow. It is pointless to do anything, merely, in order to win dollars at a time when we have such a short time before mass extinction becomes a way of life.

We ought not to be ruled by neoliberalism and we ought to stand up to the designers who are leading us to the brink of extinction. To that end, we must reframe our approach to the way we live our lives (Table 2.3).[34]

- How can we weave together strands of social, cultural, political, economic and environmental experience to make us more capable and more resilient in ways that support our wellbeing, climate-affected disaster-prone regions and the cities that depend on them?
- How can the health, housing and social inclusion needs of the most vulnerable in climate-affected cities be addressed?

Table 2.3 Shifts in thinking

Neoliberalism	New socialism
Social terms—residual qualifications for welfare Gap between rich and poor grows wider	Universalism—towards social wage for all Social wage ensures quality of life for all
Economic—competition for scarce employment Opportunities—as a result unemployment remains an issue	Economy—universal wage and payment for Volunteering—no unemployment
Environment—exploited as a resource—or at best costed as a resource worth protecting	Environment seen as part of the global commons
We are required to work longer and harder to prop up profits at the expense of people and the environment	We are strands of a living system

The research is informed by the philosophy of connecting with living systems (of which we are a strand) to promote resilience. Resilience is defined as the adaptive capacity of the physical environment, of an individual or of a group. It concerns factors such as the capacity of members of a community to act together and to be able to modify, or even transform, existing ways of life (Rose 2005, Hulme 2009, Shiva 2012) as well as the social, economic and environmental determinants of wellbeing.[35] Mapping human functioning and capability (Murray et al. 2007) is vital to address fair distribution of resources and to protect the needs of the vulnerable in disaster-prone areas. The research is located in the Environmental Humanities with an emphasis on vulnerability to disaster and climate change.

Can Symbols Help Us to Understand the Commons and Our Role as Stewards of Living Systems?

Flowing water can be seen as a symbol of the potential for change in the way we see ourselves and others. Water can be fixed, frozen or flowing, or it can evaporate and fall as rain as the temperature changes. The need to break out of the trap of thinking within the limits of binary oppositional logic has been discussed elsewhere (McIntyre-Mills 2017). The mind trap, to use Vicker's term, can be escaped by means of symbols that connect us with other living systems (organic and inorganic). They are the elements that make us and to which we return.

Hence the subtitle of the collection: 'We are the land and the waters'. Weaving river grasses is an Ngarrindjeri metaphor of spiritual significance. River grasses remove salt and reduce the salinity of the River Murray. They are a vital part of the environment. The grasses are woven as functional and decorative artefacts by woman as they talk and share stories at Neporendi where the healing metaphor was explained and where it was used as a means to develop a shared set of stories from men and women about what wellbeing meant to them. One of the woman leaders stressed that without the river Adelaide and the people of the region are unable to be healthy.

The weaving symbolism is important for our engagement process. It stressed the importance of individual identity and collective rights and responsibilities. Women's views and men's views were shared and combined in the analysis without denying the differences and the connections.

The Subak system requires transparency and an immediate perception of equity and fairness that is designed and owned by the people and for the people. The Balinese

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[35] According to Stiglitz, Sen and Fittousi (2010), so-called wellbeing stocks span '1. Material living standards (income, consumption and wealth), 2. Health, 3. Education, 4. Personal activities including work, 5. Political voice and governance, 6. Social connections and relationships, 7. Environment, 8. Insecurity, of an economy as well as a physical nature'. This definition fits well with the way in which both Indigenous and non-Indigenous Australians connect with the country and the way in which critical systems thinkers and complexity theorists understand interrelationships. The way to operationalise the raft of concepts is addressed through combining Nusbaum's (2011) concepts on norms and rights with Stiglitz, Sen and Fittousi's work (2010) on functioning as a multidimensional measure of wellbeing and resilience.

Subak systems enabled people to water their crops through a simple method of using gravity and canal dividers. Once this simple system was mechanised and they could not see the actual amounts going from one canal to another, it was impossible to monitor. Without transparency there can be no sense of fairness:

> the method[the flooding of rice fields on a careful schedule] depends on a smoothly functioning, cooperative system of water management, physically embodied in proportional irrigation dividers, which make it possible to tell at glance how much is flowing into each canal and so verify that the division is in accordance with the agreed on schedule… Modernisation plans called for the replacement of these proportional dividers with devices called "Romijn gates"…The use of such devices makes it impossible to determine how much water is being diverted…. (Tenenberg 2012: 91)

Gunter Pauli (2010: 230–235) explains that natural systems do not work in linear ways. They are cyclical and abhor any forms of waste:

> Nature does not calculate cash flow. While we are obsessed with monetarization (to our own benefit) natural systems generate multiple revenue flows best measured in protein, drinking water, energy resources and defense systems. Nature produces benefit through the calculation of integrated benefit flow…. (Pauli 2010: 235–236)

Pauli (2010: 236) then goes on to explain that the linear economic model costs inputs, throughputs and outputs and externalises the costs to society and nature. Furthermore, it does not disclose the opportunity costs to future generations of life. A sustainable local community is determined by a sustainable region in which food, energy and water supplies are considered as major determinants for wellbeing. No community can be expected to transform from a high-carbon life style (or aspiring to this life style) without feeling part of the design process and owning the decisions as to how resources should be used. However, if young people can be enabled to tap into 'eco-facturing' in a 'cascade economy' (Pauli 2010) based on finding sources of abundance in nature and in the misdirected systems (Ackoff and Pourdehnad 2001) created by the current economy, then new possibilities can be created. Pauli (2010: 79) citing Peter Drucker stresses that: 'the needs of the poor are opportunities waiting for entrepreneurs'. Furthermore, the contributions made by those who live simply and well need to be demonstrated and recognised in their planetary passport (McIntyre-Mills 2017). If we are prepared to recognise opportunity, the potential for resilience and also our mutual vulnerability, it provides a basis for stewardship. We are all reliant on others and need to be able to depend on our connections with others in a cascade economy. What if we could recognise our vulnerability, and what if we could foster a sense of caring for others that recognises our humanity and our mutuality? Pauli (2010: 235–6) stresses that sources of abundance can be found in nature:

> Nature does not calculate cash flow…. While we are obsessed with monetarization (to our own benefit), natural systems generate multiple revenue flows best measured in protein, drinking water, energy resources and defense systems. Nature produces benefit through the calculation of integrated benefit flow.

The so-called cascade economy conceptualised by Pauli (2010) is based on emulating nature. I drew on and adapted the ideas of Pauli (2010) and McDonough (1992) and Szenasy (2017)) about better design for living in this example: Imagine a block of flats that is designed to follow natural flows: rainfall is collected on rooftop

gardens; rain tanks channel water for drinking; grey water is used to flush toilets and filtered to be reused for growing food; gardens are extended to the sides of buildings, on bridges across buildings and in basements; natural materials, such as mud, cow dung, thatch and bamboo, are used for construction; and termite mounds are used as templates to design airflow systems.

Arguments for and against the national, transnational and supranational organisations have been raised by idealists, pragmatists and realists. A way to bridge the divides is through expanding pragmatism to consider the consequences for current and future generations through addressing wellbeing and developing governance systems to ensure that so-called stocks for the future are developed through limiting the way in which production processes and distribution practices benefit the minority at the expense of the majority.

Instead of opting for the liberal market economy, it is possible to create a completely different economy based on an alternative approach where, for example, building materials are grown, collected, distributed and used for the production of sustainable housing, sustainable food, health care drawing on natural remedies and biomimicry in low-carbon economies.[36]

Stiglitz et al. (2010: 15) use a multidimensional measure of wellbeing. Instead of valuing profit we need to think quite differently in terms of so-called wellbeing stocks (Stiglitz et al. 2010).

Given the water insecurity in South Africa, the movement south is likely to decrease, and more people from the drought-stricken Northern and Eastern parts of Africa will try to make the dangerous passage across to Europe. Taylor (2017)[37] writes about the recent The Environmental Justice Foundation (EJF) study that makes the case that more needs to be done to protect climate refugees and that implementing the Paris Climate Change Agreement is an imperative. It also stresses that from 2007 to 2011, one and a half million people have moved to cities because they did not have access to 'food, water or jobs'. Taylor's (2017) article cites Sir David King, the former chief scientific adviser to the UK government:

> What we are talking about here is an existential threat to our civilization in the longer term. In the short term, it carries all sorts of risks as well and it requires a human response on a scale that has never been achieved before.

The article sums it up as follows:

> Tens of millions of people will be forced from their homes by climate change in the next decade, creating the biggest refugee crisis the world has ever seen, according to a new report. Senior US military and security experts have told the Environmental Justice Foundation (EJF) study that the number of climate refugees will dwarf those that have fled the Syrian conflict, bringing huge challenges to Europe.

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[36] Addiction to coffee can be linked with using coffee grinds to grow mushrooms, the plastic containers could be replaced with biodegradable options derived from local plants, and tin cans can be used as the insulation for building walls and for creating decorative artefacts in creative co-operative hubs for artists.

[37] Taylor, M 2017 https://www.theguardian.com/environment/2017/nov/02/climate-change-will-create-worlds-biggest-refugee-crisis

Taylor (2017) citing the report goes on to stress:

> "If Europe thinks they have a problem with migration today … wait 20 years," said retired US military corps brigadier general Stephen Cheney. "See what happens when climate change drives people out of Africa—the Sahel [sub-Saharan area] especially—and we're talking now not just one or two million"

Last night I spent time speaking with my elderly mother and father on Skype about how they are trying to conserve water in Cape Town. The city of Cape Town was officially declared a disaster zone in November 2017. Desalination and other measures to provide water are slow to be implemented as the city does not have sufficient funding to develop infrastructure. The prospect a city without water has been flagged as a reality. March 2018 is the month when the city of Cape Town will run dry.[38] My parents have replaced lawn with Indigenous plants and pebbles; they swim to reduce showering and reuse grey water on the garden. Carrying buckets to water plants has become a way of life. Birds congregate in their garden, pigeon, doves, guinea fowl and a scarce Cape hoopoe. They come for the twice-daily supply of bird seed and the water provided by a 'bird bath'. The next phase will be collecting water for drinking from delivery points.

In Australia, during the periodic droughts, kangaroos graze on the grass, as our lawn is a bit greener than the nature reserve at Cleland. Extinction is now a byword for some who are foresighted; Deborah Bird Rose writes about species extinction and the need for multispecies ethnographies to address the convergent challenges we face as interrelated species. It is time to work together across disciplines and not to adopt the narrow approach to policy that denies that climate is indeed a challenge.

Biologist Alan Rayner's (2017)[39] recent 'tree conference' focused on a recognition of our interdependency which he discusses as a recognition of natural flows for living systems. His non- anthropocentrism is centred in a recognition of our place within these dynamic life flows which need to be honoured as sacred and central to life. They are beyond price. Trees and plants can be seen to symbolise life as they are the lungs of this planet. The wisdom of a farmer, who acted according to his understanding of the way Banyak trees provide ground cover to protect the soil, helped to save his village in Indonesia is inspirational.

The actions of wise individuals can save communities, villages and cities. The recent work of Al Gore in his sequel to *An Inconvenient Truth* emphasises the positive steps made by cities in America, despite the official stance of Trump and his decision to withdraw from the Paris Climate Change Agreement. A past Australian Prime Minister recently claimed that global warming could protect human health, as warmer climates are less damaging to our health, in his opinion.[40] Nevertheless, the massive number of deaths in Europe associated with heat waves belies that notion!

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[38] https://www.news24.com/SouthAfrica/News/time-and-money-two-major-obstacles-in-tackling-cape-towns-water-crisis-20171019

[39] The Tree Conference recorded event, 4th November 2017.Dr Alan Rayner – Understanding Trees and Fungi as Flow Forms

[40] https://www.theguardian.com/australia-news/2017/oct/10/tony-abbott-says-climate-change-is-probably-doing-good

Cascade Economics: A Way Forward and in Whose Opinion?

The cascade economy is based not merely on emulating nature but the capability to be actively engaged in shaping the future. The reuse and reassemblage of resources by seeing them in different ways are encouraged to enhance the protection of living systems of which we are a strand, and seeing ourselves as being able to shape what is regarded as a so-called wellbeing stock is central to this approach.

Agriculture needs to be seen as working with natural habitat and regenerating and protecting it wherever possible. Extending areas for production in the city to verges, courtyards and rooftop gardens is stressed by Pauli. He suggests rain tanks channel water for drinking, and grey water can be used to flush toilets and filtered to be reused for growing food. Gardens could be extended to sides of building, on bridges across buildings and in basements. Natural materials could be used, such as mud, cow dung, thatch and bamboo. Termite mounds could be used as templates for designing airflow, and maggots could be used to process waste. Maggots also provide wound care and a natural healing agent! These ideas and more are explained by Gunther Pauli (2010) and William McDonough[41] who developed the Hannover Principles to encourage better design for living in 1992.

Pauli (2010: 236) explains that the linear economic model cost inputs, through-puts and outputs and externalises the costs to society and nature without disclosing the opportunity costs to future generations of life. Sustainable local community is determined by a sustainable region in which food, energy and water supplies are considered as major determinants for wellbeing. No community can be expected to transform from a high-carbon life style (or aspiring to this life style) without feeling part of the design process and owning the decisions as to how resources should be used. But if young people can be enabled to tap into 'eco-facturing' in a 'cascade economy' (Pauli 2010) based on finding sources of abundance in nature and in the misdirected systems (Ackoff and Pourdehnad 2001) created by the current economy, then new possibilities can be created. Pauli (2010: 79) citing Peter Drucker stresses that: 'the needs of the poor are opportunities waiting for entrepreneurs.' However, a focus on vocational educational training needs to be on opportunities for women and children in line with the UN Sustainability Development Goals (2014).

Boulding (1966) and Pauli (2010) distinguish between renewables and non-renewables. Stiglitz et al. (2010) stress that economic performance is less important than protecting the fabric of life on which we depend. However, Pauli goes further than Stiglitz et al. to suggest that a paradigm shift is required to appreciate how economies can be seen as flows that abhor any form of waste. Thus, wasted opportunities are important. Unemployment and social and environmental injustice are not externalities in this approach; they pose challenges for policy-makers and academics who need to decide if they are going to be part of the problem or part of the solution. Praxis is not a spectator sport, and it needs to avoid being blind to the differing life chances that flow from being male, female, educated, uneducated, black, white, a citizen, non-citizen and able to communicate or unable to communicate with powerful decision-makers.

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[41] http://www.archdaily.com/804110/william-mcdonough-on-sustainability-carbon-is-not-the-enemy?utm_medium=email&utm_source=ArchDaily%20List

'Flows' refer to the way in which human choices shape the landscape of our daily lives and need to be understood as part of the situated knowledges that are valued or discarded. What we choose to value is translated into being through our thinking and practice. The scope of the new architecture for democracy and governance is to make a plea for a planetary passport to enable us to rethink boundaries and relationships at multiple levels of democracy and governance through applying multiple forms of intervention to protect living systems. The capabilities approach on which this approach rests is non- anthropocentric, and it provides a basis for addressing better governance to prevent discrimination against the majority of this generation and the next. Alternative ways of framing human-nature relationships in legal, ethical and spiritual terms are illustrated by the Bolivian and Ecuadorean constitutions in line with their belief in Mother Earth or Pachamama. Despite the fact that the rhetoric is undermined by the political reality of 'business as usual', it provides a first step.

The next step is providing the necessary 'planetary passport' that aims to inspire loyalty to the planet as well as acting as a monitoring system to protect living systems through enabling people to address the UN Sustainable Development Goals at the Local Government Level and recognising their contribution to protecting wellbeing stocks. This form of monitoring 'from below' could enhance representation, accountability and sustainability and be translated into points that enable the voices from below to be heard through local government and local communities using their mobile phones to have a say.

Furthermore, the contributions made by those who live simply and well need to be demonstrated and recognised in their planetary passport (McIntyre-Mills 2017). If we are prepared to recognise opportunity, the potential for resilience and also our mutual vulnerability, it provides a basis for stewardship.

The planetary passport (McIntyre-Mills 2017) is a means to maintain and regenerate wellbeing stocks. Production and consumption are indicative of GNP, but the focus is on maintaining human and natural resources (Table 2.4):
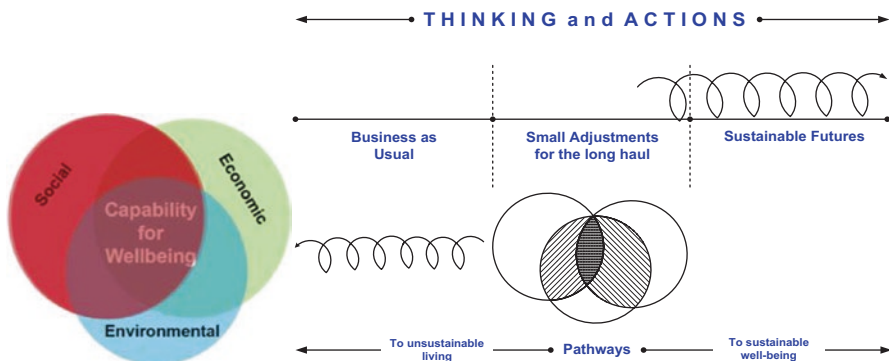
https://archive.org/download/pathway_DEMO_1pathwaystowellbeing
https://ia801606.us.archive.org/20/items/pathway_DEMO_1/pathway_DEMO_1.mp4

Table 2.4 Everyday strategies at the micro, macro and meso level to address the Sustainable Development Goals

		Functioning
	Everyday strategies: capabilities through monitoring from below to operationalise an engagement space and enhance the way in which everyday decisions shape local responses to the UN Sustainable Development Goals by addressing human capabilities and human functioning in ways that support livelihood and employment opportunities	
Micro	Household productivity and resilience supported by agency through a community of practice to enhance agency developed via tasks and relationships signified—'being, doing, having and interacting' (McIntyre-Mills 2014, 2017). Mapping will enable an assessment of what people have and need in terms of food, energy, water and safe housing identifying turning points for social inclusion to enhance both human capability and functioning (Nussbaum 2011 and Sen's 2003 definitions), barriers and resources (human and environmental)	Sustainable human functioning supported by safe housing and a sustainable household economy
Meso	Local community involvement in state, market and civil society to protect habitat for renewable energy, food production and environmentally friendly household construction (e.g., mud, grass, bamboo) to enhance agency through tasks and relationships add to the commons or to discard habits that undermine the commons. Identifying positive and negative turning points, barriers and resources (material and non-material)	Supporting food security through reducing food miles. Supporting water security and community habitat based on mapping and acknowledging community reciprocity to support the commons
Macro	Agency to voice concerns through social movements and online advocacy to protect local resilient communities. **Address** perceptions and representations (Hesse-Biber 2010) of different stakeholders to ensure that diverse views and areas of overlap are analysed (Midgley et al. 2007; Ulrich and Reynolds 2010). **Find root metaphors** from the data collected, in order to address the aims and research questions in pursuit of a new methodology. In this way it will contribute to an improved understanding by drawing on many forms of intelligence (Gardner, 2008). To this end, root metaphors of perceptions of wellbeing and resilience will be explored over the 3-year period through a community of practice that is facilitated by the 'pathways to wellbeing software platform' and Global Agora's Structured Dialogue (Christakis and Flanagan 2010)	Support the wellbeing and resilience of the commons through representation and accountability through monitoring from below through using online software

Sociology, Art and Narrative for Decolonisation

Previously sociology was merely a study of human relationships. However, today it is a study of human being's relations to one another (including sentient beings) and our ability to shape this generation of living systems and the next. The lesson of stewardship could be learned the world over from Indigenous people. Statues to great thinkers who respected the earth, land, sea and air could be a focus for public education.

Art is an expression of emotion and a celebration of identity if people are able to have a say. Similarly, it can be used to oppress and silence the history and identity of others.

The theme for this multisite symposium and my work to date has been 'weaving'. Recently I listened to a documentary on the life of Peter O'Neil, a hermit[42] whose lifework involved recovery from a sense of being out of place in the wider world. He wrote his story in a series of journals about his injury and illness, living sustainably and regenerating herbs and vegetables and other plants at risk by harvesting seeds and providing them by mail order to other gardeners. He read widely and tried to make sense of the big questions in life by weaving together a range of disciplines and searching across cultures for his personal sense of enlightenment. He documented his thoughts in notebooks using his own notation and a series of links across a range of topics.

History, herstory and the story of multispecies ethnography are needed to set the balance right to ensure that many voices are heard. Stan Grant has made a similar plea.[43]

The decolonisation of the mind is just a starting point for realising our proper place in the web of life.

Critical analysis is central to history and its record should be regarded as a function of universities. The decentring of the statue in a place where it can stimulate discussion seems appropriate. The destroying of the historical record, whilst cathartic does not help to retain the memory or the warning to future generations.

In Australia the recent articles by Paul Daly has led to much needed debate.[44] But it should not deflect attention from the need to remember history and the opportunity to revisit statues as an opportunity to remember what happened and why we should *not* forget.

The massacres of Aboriginal Australians have not been a focus of attention.[45] But this month the statues of leaders have become a starting point for acknowledging the truth of the colonial wars and the extent of Aboriginal lives lost not only in the 150

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[42] http://www.abc.net.au/compass/s4699513.htm

[43] http://www.abc.net.au/news/2017-08-25/stan-grant-captain-cook-indigenous-culture-statues-history/8843172

[44] https://www.theguardian.com/australia-news/postcolonial-blog/2017/aug/25/statues-are-not-history-here-are-six-in-australia-that-need-rethinking

[45] https://www.theguardian.com/australia-news/postcolonial-blog/2017/jul/07/red-dots-spatter-wall-of-great-australian-silence-over-blackwhite-frontier-violence

massacres recorded by the Newcastle University project but also through the many direct and indirect murders that have not been recorded.

The ABC asks that Australians be made aware of truths that ought not to be buried.[46] Aguan (2010:57) cites UNDRIP and explains:

> "On September 13, 2007, in the General Assembly, 144 countries adopted the Declaration on the Rights of Indigenous Peoples, an international human rights instrument that for the first time in history formally and unequivocally recognised the world's indigenous peoples as "peoples" under international law, with the same human rights and freedoms as other "peoples." The Declaration was the fruit of more than twenty years of negotiations between indigenous representatives, nation-states, and independent experts in Geneva and briefly, New York. It embodies new norms governing indigenous-state relations."

The Indigenous residents of Guam face becoming a minority group without voting rights as militarization increases in this American base. Off-shore detention on Manus Island is indicative of the border mentality of nationalism in Australia. The fear of the detainees outweighs cutting off water to the centre which has been closed down. They prefer to remain in the comparative safety of the centre to the risk of living in centres without security. Within South East Asia, Bangladesh currently faces widespread flooding, whilst on its borders the Rohingya refugees from Myanmar (Burma) who flee persecution also await safe passage. Systemic Intervention can be defined as addressing specific areas of concern in specific contexts.

The UNDRIP is not applied in Guam, Aguon stresses (2010: 68):

"In reality, Guam remains under the purview of the Office of Insular Affairs in the U.S. Department of the Interior, and is governed alongside, among others, the National Park Service and the U.S. Fish and Wildlife Service".

The repatriation of artefacts and remains is another aspect of colonial legacies that need attention 'lest we forget':

> Newcastle University this week unveiled the first phase of an online Australian map that, using strictly formulated evidentiary criteria, plots massacres (the orchestrated killings of six or more people) between 1794 and 1872. So far the research, led by Lyndall Ryan, has focused on the continental south-east including Tasmania (the areas that hosted most of the earliest violence) and has chronicled about 150 massacres.

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[46] http://www.abc.net.au/news/2014-01-20/tunnerminnerwait-and-maulboyheenner/5209006

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Chapter 3
Maintaining Space for Dialogue and Diversity

Janet McIntyre-Mills

Abstract The approach detailed in this chapter aims to honour diversity and to keep the identity of separate strands. The workshop and symposium hosted by Flinders and UnPad invited colleagues from a range of disciplines to address the area of concern posed by Rorty (1997) in *Achieving Our Country*, namely, to be practical, engaged academics rather than spectators. My intersectional and interdisciplinary research programme to date focuses on exploring pathways to wellbeing and resilience in urbanised, environmentally affected locations. It explores participant's culturally specific responses and perceptions on human capabilities, the social determinants of wellbeing and the resilience of the environment on which human beings depend for survival. The research problems identified are explored to find pathways to support meaningful change.

Keywords Multiple mixed methods · Social and environmental justice · Elimination of waste and want

Preserving Space for Overlaps and Differences in a 'Recognition Space'

Yap and Yu (2016) stress the need to preserve space for recognition. Dialogue based on respect for the other is the starting point for exploring differences. The recognition of where we agree and disagree and why is important when operationalizing wellbeing. The capabilities approach (Nussbaum 2011) stresses the importance of agency. This means the right to voice and shape the way in which policy is framed.

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A key theme for the two volumes from the symposium was 'Addressing unemployment with particular reference to those left behind in the current economy (particularly women and young people) to explore the potential of new alternatives such as the so-called cascade, blue economy approach by Gunter Pauli (known as Sustainability version 2)'. There are many definitions of blue economy. We extend the meaning as outlined by Gunter Pauli to emphasise opportunities to enhance social and environmental justice.

It is possible to develop the green economy or the blue economy without emphasising both social and environmental justice. The blue economy approach of Gunter Pauli (2010) outlines more than 100 ways to create opportunities through environmental thinking that does not privilege the environment at the expense of people; instead his approach is to find ways to enable the unemployed to benefit through working on environmental challenges. His motto is 'There is no unemployment in eco-systems' (Gunter Pauli 2010, 2016). He stresses the need to provide integrated opportunities through design that taps into the abundant talent and environmental opportunities that can be found and to ensure that the designs protect both people and habitat. This is a systemic approach that could ensure that people come up with solutions that do not create divides across people, other species and the environment. It is unnecessary to argue that for people to flourish the environment must suffer:

> Like 'green economy', which is not limited to the green ecosystem, this 'blue economy' is not limited to the marine ecosystem. It is the economy that responds to the basic needs of all with what we have. As such, it stands for a new way of designing business: using the resources available in cascading systems, where the waste of one product becomes the input to create a new cash flow." (Jan Steffen, International Union for Conservation of Nature). Dr. Catia Bastioli, Chief Executive Officer at Novamont S.p.a, European Inventor of the Year 2007, sums it up this way: "The blue economy fosters our transition from a product-based economy to a system-based economy." Some of the basic principles of this "blue economy" are: "Substitute something with nothing—question any resource regarding its necessity for production. Natural systems cascade nutrients, matter and energy—waste does not exist. Any by-product is the source for a new product. Sustainable business evolves with respect, not only for local resources, but also for culture and tradition.[1]

'Transformative approaches' (Mertens et al. 2013; Mertens 2016) refer to assumptions about power, the value of Indigenous knowledge, the need to make life chances and the lack of life chances visible and the need to develop trusting relationships that are responsive to complex needs. 'Wellbeing stocks' is a concept developed by Stiglitz et al. (2010: 15) to refer to a multidimensional measure of wellbeing spanning: "1. Material living standards (income, consumption and wealth), 2. Health, 3. Education, 4. Personal activities including work, 5. Political voice and governance, 6. Social connections and relationships, 7. Environment (present and future conditions), 8. Insecurity, of an economy as well as a physical nature." I caution the application of use and exchange value in terms of measures of only the a posteriori pragmatic

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[1] See http://business.inquirer.net/128587/from-green-to-blue-economy

measures of the so-called functionality of the basic fabric of life and stress that we need to attribute a value beyond price. Thus I expand the concept of 'wellbeing stocks', developed by Stiglitz et al. (2010) to take on board the points made by Nussbaum (2011) about the need to appreciate the 'determinants of a life worth living'. Thus the capabilities approach needs to draw on both Amartya Sen's functionality and Nussbaum's a priori idealism. In reworking the capabilities approach, I make a case for both rights and stewardship to protect living systems and sentient beings, simply because it is the right thing to do. All life is interdependent and vulnerable, but as human beings we need to act as stewards as we are responsible for achieving Boulding's notion of transformative culture (Boulding 1956). I also draw on Butler and Athanasiou (2013) to stress the need for performative agency to protect the commons and the need to concentrate on dynamic ways of working with others.

The aim of the volumes is to enable people to re-evaluate economics and to become more aware of the way in which we neglect social and environmental aspects of life. The pursuit of profit at the expense of people and the environment is a central problem for democracy and governance. Education policy needs to be inspired by original thinkers such as Professor Wangari Maathai (2004) who stressed in her third Mandela Lecture:

> There are simple actions we can take. Start by planting ten trees we each need to absorb the carbon dioxide we exhale. Practice the 3R campaign (reduce, re-use, repair and re-use, which is mottainai in Japanese), get involved in local initiatives and volunteer your time for services in your community. Governments should prioritize technical schools and give people knowledge and skills for self-employment.

Deborah Rose Bird stresses the importance of appreciating on Indigenous understandings of nature.[2] This approach could help us to understand what Gunter Pauli (2010) mean by the following statement.

> … While we are obsessed with monetarization (to our own benefit) natural systems generate multiple revenue flows best measured in protein, drinking water, energy resources and defense systems. Nature produces benefit through the calculation of integrated benefit flow…. (Pauli 2010: 235–6)

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[2] To what extent is there: A divide and rule approach? Exclusion of subjects from participation? Might is right approach? Reduction of complexity? Limiting the terms of reference? To what extent is a problem constructed in a way that is in the interests of the entrenched power elites? See   https://www.youtube.com/watch?v=qp3Ktlfy0Hw&app=desktop,   https://www.youtube.com/watch?v=suSbvoAw0g4.

What does Deborah Bird Rose mean by the colonisation of the land and the mind?
- Caring for country? Gift of country?
- What does she mean by *multispecies ethnography*?
- What does she mean by the human/nature divide?
- What is the implication for ethics and public administration?
- What does she mean by species extinction?
- What is the relevance for current policy decisions?

Please watch and then think about responses to the questions.
- https://m.youtube.com/watch?v=suSbvoAw0g4
- http://umaincertaantropologia.org/2013/08/17/the-emergence-of-multispecies-ethnography-cultural-anthropology/
- What are the implications for human/animal habitat in South Africa?

Pauli (2010: 236) then goes on to explain that the linear economic model does not disclose the opportunity costs to future generations of life (see https://www.youtube.com/watch?v=sLh-U99avso, https://www.youtube.com/watch?v=sLh-U99avso).

In many ways the visionary work has blind spots associated with gender mainstreaming within the political contexts in which he operates. In what ways are the examples of coffee production that also supports protein from waste appropriate in Zimbabwe? In what ways is the construction a building based on termite construction inspirational? What are the implications of developing opportunities by and with people at the local level without addressing the issues of state capture? What are the issues associated with overcoming boycotts? What is the problem associated with being apolitical? How can the regenerative approach maintain agency whilst remaining critical?

In the environment, there is no waste, because what is waste for one is food for another. Nevertheless, let me caution that although in nature this is a way to foster diversity, it provides multiple niches and habitats. Nevertheless in the social context, it is necessary to take the analogy of living carefully in ways that reuse and recycle so as to support creating something worthwhile out of waste. This symposium:

- **Reframes** what we value as a society. Human development needs to protect 'wellbeing stocks' (Stiglitz et al. 2010) that include social, cultural and environmental dimensions. The concepts of stewardship and resilience are important notions through which to explore this nexus between wellbeing and environmental sustainability (Pauli 2010). Stewardship is based on awareness that the land and biologically diverse ecosystems are a cultural heritage (Flannery 2012) on which the wellbeing of current and future generations depend. Resilience is defined as the adaptive capacity of the physical environment, of an individual or of a group. It concerns factors such as the capacity of members of a community to act together and to be able to modify or even transform existing ways of life (Rose 2005; Hulme 2009; Shiva 2012).
- **Explores** whether collaborative approaches drawing on diverse ways of knowing (Cruz et al. 2009) and user-centred governance of resources (McIntyre-Mills 2003, 2006a, b, c, d, 2008, 2012; Podger et al. 2012) could support regional governance (Weir 2012) to support effective environmental management based on the UN Sustainable Development Goals.
- **Tills new ground** on understanding psychosocial, cultural relationships and power dynamics across diverse groups as they relate to wellbeing multispecies, habitat and environmental stewardship. The conversations will continue and extend to others via a face-to-face and digital community of practice to meet the different engagement needs of residents (Wenger et al. 2009). The engagement process, prompted by the index, enables people to think about the way they live and how this shapes their perceived wellbeing.

The challenge for governing the Anthropocene ethically and wholesomely is one of moving away from disciplinary and functional differentiation, in order to span

biological, psychological, social, cultural, spiritual, political, economic and environmental dimensions to support living ethically in ways that redress the worst aspects of modernisation (Berger and Luckman 1966). Aboriginal cultures teach us about stewardship and relationships with the land, but these relationships have been lost in non-Aboriginal cultures. As Major Sumner, a Ngarrindjeri Aboriginal elder from the periodically drought-ravaged lower Murray River in South Australia and custodian of the river, stresses 'we are the land and the land is us'. Re-establishing relationships with the land is at the heart of effective cultural ecosystem management.

Cultural Flows and River Grasses

Turner (1974: 25) cites Black, the Cornell philosopher, and points out that:

> perhaps every science must start with a metaphor and end with algebra; and perhaps without the metaphor there would never have been any algebra…

He goes on to explain (citing Wheelwright (1969: 4) that metaphors bring together and 'fuse separated realms of experience into one illuminating, iconic and encapsulating image' (Turner 1974: 25).

Turner (1974) then continues by explaining (and drawing on Polanyi) that they can act as a form of 'tacit knowledge'. The idea that we now need to think of democracy in terms of weaving together strands of experience is important as is the notion of river grasses for removing salinity and water as a synecdoche of the sense of flow that the Intergovernmental Panel on Climate Change (IPCC) formula sums up to demonstrate that what we do in one part of society flows on to effect the environment on which we depend.

The root metaphor of flows was used with Neporendi when undertaking research with caretakers of the Murray River linked with Neporendi where I undertook research as part of an Australian Research Council Linkage Grant from 2004 (see McIntyre-Mills 2008).

The other (linked) metaphor of weaving strands of experience came about through conversations with the elders who explained the importance of the river grasses for removing salinity as the river ebbs and flows. The health of the Murray River is dependent on the removal of toxins. The grasses can be seen to function as liver or kidneys. This has also been stressed by Weir (2009, 2015).

The binary oppositional thinking and commodification are core problems in Western neo-liberalism as stressed elsewhere (McIntyre-Mills 2014) which has implications for ethics and our relationship with living systems.

> The realisation of both environmental flows and cultural flows rests partly with whether we can reduce the powerful influence of separation thinking, and this is also what thwarts our ethics for living lives in connection. Cultural flows are quickly trapped in the contradictory constraints of separation thinking, and are more easily communicated as narrowly defined water allocation (Weir 2009: 119–129 cited in Weir 2015)

Respect for Place Within Country and Decolonisation of the Mind

A sense of agency and responsibility for caring for country is lost when we place ourselves above nature. Human beings co-evolved with many species and our inter-dependency needs to be remembered. The work of Donna Haraway (2016) on multiple species and the work of Deborah Bird Rose (2000, 2011) on dingoes remind us how human beings as hunters relied on dogs for hunting, protection and warmth. Wolves evolved from dogs. The species were originally attracted to the prospect of leftover bones and the friendlier and more curious moved closer to the camps. The dingoes are wild dogs. They too have rights and a place in the dreaming story. They are not necessarily functional in the ways that domestic dogs are functional and they have not been tamed. They have rights, simply because they belong to country.

> Country is where the rules for existence and many of the relationships between species and humans were established by ancestral creative beings (Rose, 2000[1992] pp 43–44. This is holistic knowledge tradition that emphasizes connections, respect and mutuality. Rather than mindless matter, the plants, animals and places have agency, law and language. (Weir 2015: 18)

Rose (2011: 4) stresses:

> Many Aboriginal people also affirm universality. The Aboriginal actor, dancer, and philosopher David Gulpilil stated the case in his own poetic prose: "We are brothers and sisters of the world. Doesn't matter if you're bird, snake, fish, kangaroo: One Red Blood."

> How we might consume in ways such that one species' or community's consumption does not compromise the survival chances of others? (Gibson-Graham and Miller 2015a, b: 15)

The blue economy perspective of Gunter Pauli (2010) is more than an approach to protect the rivers and oceans. It alludes to the planet as a blue marble as seen from space. It has merit as a means to create jobs through enabling people to make the most of natural and waste resources. Pauli stresses that nature has no unemployment, because nothing is wasted. But the approach needs to develop a specifically gender mainstreaming approach in line with the Paris Agenda that stresses the need to enable women to have a say in development initiatives. Furthermore, the increased loss of land and deforestation leads to the deterioration of the quality of the farming land over a few years of heavy rains, run-off and loss of top soil. Small farmers who leave the regional areas face the likelihood of a deteriorating standard of living over time. Although in the short term salaries may seem attractive in comparison with rice farming, women migrants in particular are vulnerable to health challenges and social stigma when working in the Bandung in textile jobs or waitressing in coffee shops or selling tea and food as hawkers. These jobs are often also linked with prostitution. Rosenberg et al. (2002: 82) stress that women working in the sex trade have been trafficked from regional areas with promises of employment in the city and that salaries in 2002 were "up to 3000 US dollars for the so-called top end of town", whereas those "working the streets could earn about 100 US dollars a month. The

project addresses the Sustainable Development Goals[3] through addressing job creation in sustainable development and through linking the ethical production of coffee with Animals Australia, the Indonesian Diaspora and business development opportunities in South Australia.

The research is in line with the UN 2030 Agenda[4] based on the shared commitment to collaborate to achieve the 17 UN Sustainable Development Goals.[5] It is thus also in line with Paris Agenda which emphasises the need for local people to have a say in all development decisions. The application of Gender Mainstreaming (Indonesian Law 9/2000) is also important in this regard.[6]

And in order to achieve this, it applies the notion of UN Local Agenda 21 based on the idea that all local people should participate in developing social, economic and environmental indicators so that they are perceived to meaningful to them.

However, it takes an additional step in stressing that regeneration is vital and that the triple bottom-line indicators (Elkington 1994, 1997) need to embed these to ensure that socially, economically and environmentally the policy decisions that are taken at a local government level actually embed regeneration as a central capability

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[3] The goals are as follows, to cite the UN website:

Goal 1. End poverty in all its forms everywhere

Goal 2. End hunger, achieve food security and improved nutrition and promote sustainable agriculture

Goal 3. Ensure healthy lives and promote wellbeing for all at all ages

Goal 4. Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all

Goal 5. Achieve gender equality and empower all women and girls

Goal 6. Ensure availability and sustainable management of water and sanitation for all

Goal 7 Ensure access to affordable, reliable, sustainable and modern energy for all

Goal 8. Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all

Goal 9. Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation

Goal 10. Reduce inequality within and amongst countries

Goal 11: Make cities inclusive, safe, resilient and sustainable

Goal 12: Ensure sustainable consumption and production patterns

Goal 13: Take urgent action to combat climate change and its impacts

Goal 14: Conserve and sustainably use the oceans, seas and marine resources

Goal 15: Sustainably manage forests, combat desertification, halt and reverse land degradation and halt biodiversity loss

Goal 16: Promote just, peaceful and inclusive societies

Goal 17: Revitalise the global partnership for sustainable development

https://www.un.org/sustainabledevelopment/ Accessed 8/04/2018.

[4] http://www.alumniportal-deutschland.org/en/global-goals/2030-agenda/

[5] https://www.un.org/development/desa/publications/sdg-report-2017.html

[6] http://documents.worldbank.org/curated/en/746211468051553636/Indonesia-Gender-equality

for a resilient community. The research is part of a wider suite of projects within the Resilience Institute that will seek to address a significant problem for national governments and disaster-affected regional areas, namely, the need to protect natural habitat to prevent run-off. It expects to generate new directions for public policy through expanding our knowledge of the longer-term impact of social, economic and environmental policy decisions pertaining to the governance of resilient communities, with a view to mitigating and adapting to the climate change. It is anticipated that the project could enhance international collaboration in the area of disaster policy and provide significant policy directions to enhance preparedness and recovery through developing mixed method research that is responsive to systemic, convergent challenges. The governance and planning of cities and the rural, regional areas on which they depend are complex processes in which appropriate social, cultural, political, economic and environmental decisions have to be made for ensuring the regeneration of resources and a sustainable future.

Boundaries exist which shape our understanding and the environment in which we make a decision. The boundaries influence our thinking and perceptions about situations and systems (Ulrich and Reynolds 2010: 4). Critical System Heuristics (CSH) is the philosophical framework to support reflective practice by using a set of 12 questions to understand situations and design systems to improve them around the central tool of boundary critiques. The aim is to help in making everyday judgement consciously, in order to understand the state of things (Ulrich and Reynolds 2010).

Policy analysts and planners need to research information to ensure that policies have the capacity to change ways of thinking, be able to evaluate a situation and alternatives situations, mobilise support and improve existing practices. The 12 CSH questions are based on four sources of influence, namely, sources of motivation, control, knowledge and legitimacy. These sources of influence are explored through the 12 questions (see Ulrich and Reynolds 2010 this volume, Chapter 1).

The need for managers and leaders to be able to think and act across disciplinary boundaries has long been recognised as has the need to learn from the lived experiences of staff and students who engage in reflective thinking and practice cycles. Action learning in a community of practice has been demonstrated to be effective to address the complexity of supporting RHD students who are researching cross-disciplinary 'real-life' issues and the increasing diversity of graduate research students.

Living Virtuously and Well: Who Decides and on What Basis?

In the symposium referred to above, we hoped we would achieve better understanding of sociocultural discourses, life chances and behaviour to inform policy and to improve public administration. The interdisciplinary research design includes sociology, psychology, social policy and cultural studies. Aboriginality and human geography explore wellbeing in terms of food, energy and water consumption

habits, in order to cocreate a Stewardship and Resilience Index. The outcome of this research will be to understand the diverse food, energy and water consumption choices made every day by Australians with a view to improving public administration that enhances stewardship and resilience. The benefit will be a means for the public, private and NGO sectors to explore the personal and policy implications of consumption decisions for current and future generations through scenarios of business as usual, making small changes and living ethically and well.[7]

Transformative Approach to MMMR

- How can we make a difference?
- How can we protect the global commons for social and environmental justice?
- Examples of multiple mixed methods for social and environmental justice

The case is made that all three of these approaches have a role to play and that they can be seen to be supported by a multiple and mixed methods approach (Romm 2018). The concept of MMMR helps to locate the approach of expanded pragmatism for ethical thinking and practice.

Multiple mixed methods can be conducted across the full spectrum of approaches with varying emphasis depending on one's assumptions, values and area of concern. My own position is informed by all these approaches, but 'if I were to nail my colours to the mast', I am not aligned to the foundationalist approach, although I strive for better decisions through testing out ideas. The question I wish to explore is as follows: When living virtuously and well, who decides and on what basis?

The aim of my research is to extend the potential of Max-Neef's Being, Having, Doing and Interacting Index (Max-Neef 1991: 33) by adapting it to address the United Nations Sustainable Development Goals (2015) and to thereby to develop and test a means to balance individual and collective needs (McIntyre-Mills 2006). A new Stewardship and Resilience Index will be created to extend the 'frontiers of justice' (Nussbaum 2006) and measure wellbeing in terms of perceptions on

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[7] Fast-tracking community recovery and resilience building after natural disasters such as bushfires, floods and cyclones occur frequently in Australia. These events have major personal, social, environmental and economic impacts on communities. Delays and complications in recovery are not uncommon and exacerbate the effects of disasters. This project's focus is on ascertaining what factors in combination support or undermine community resilience and seeks to develop a fast-track approach to community disaster recovery that can allow communities to recover more effectively. The project will use a mixed method case study approach to produce sound theory, useful models and pragmatic guidelines for effective disaster recovery and resilience building decisions, processes, actions and policies. The design of this research builds on over two decades of collaboration with colleagues based in the International Sociological Association and a Special Integration Group in the International Systems Sciences. Together we collaborate using narrative, soft systems mapping and structured dialogue techniques in our own and shared projects through Global Agoras, a virtual colloquium site. A symposium is supported by Tier 1 Journal of Mixed Methods Research in Dec 2017 together with the University of Padjadjaran.

meeting the ten capabilities[8] of a life worth living for human and sentient beings (Nussbaum 2011).

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[8] 1. **Life**. 'Being able to the end of a human life of normal length; not dying prematurely, or before one's life is so reduced as to be not worth living'. Nussbaum (2011) defines life in terms of being free from factors that cause immature death or not being able live until late age. Life capability was amongst three basic capabilities that Human Development Index measures since it has been put in practice in 1990.
   2. **Bodily health**. Being able to have good health, including reproductive health, to be adequately nourished and to have adequate shelter. **It** includes good nutrition, decent living standards. According to the World Health Organization (WHO 2019), health is 'a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity'.
   3. **Bodily integrity**. Being able to move freely from place to place and to be secured against violent assault, including sexual assault and domestic violence, and having opportunities for sexual satisfaction and for choice in matters of reproduction.
   4. **Senses, imagination and thought**. Being able to use the senses, imagine, think and reason—and to do these things in a "truly human" way, a way informed and cultivated by an adequate education, including, but by no means limited to, literacy and basic mathematical and scientific training. Being able to use imagination and thought in connection with experiencing and producing works and events of one's own choice, religious, literary, musical and so forth. Being able to use one's mind in ways protected by guarantees of freedom of expression with respect to both political and artistic speech and freedom of religious exercise. Being able to have pleasurable experiences and to avoid non beneficial pain. **Sense**, imagination, **and thought**: Nussbaum (2011) defines this capability in terms of imagination and thought. The arts, sciences and humanities could be taught using action learning to increase the relevance of the curriculum for employment that supports and regenerates the environment.
   5. Emotions. Being able to have attachments to things and people outside ourselves, to love those who love and care for us, to grieve at their absence and in general, to love to grieve and experience longing, gratitude and justified anger. Not having one's emotional development blighted by fear and anxiety. (Supporting this capability means supporting forms of human association that can be shown to be crucial in their development.) Nussbaum argues for public policy to protect the ten capabilities as key elements for human dignity (2011: 79).
   6. Practical reason. Being able to form a conception of the good and to engage in critical reflection about the planning of one's life (this entails protection for the liberty of conscience and religious observance).
   7. Affiliation.
   (a) Being able to live with and towards others, to recognise and show concern for other human beings, to engage in various forms of social interaction and to be able to imagine the situation of another. (Protecting this capability means protecting institutions that constitute and nourish such forms of affiliation and also protecting the freedom of assembly and political speech.) **Affiliation**: The ability for people to create sense of belonging to others (including other species such as animals and plants) and to institutions.
   (b) Having the social bases of self-respect and non-humiliation and being able to be treated as a dignified being whose worth is equal to that of others. This entails provisions of non-discrimination on the basis of race, sex, sexual orientation, religion, caste, ethnicity and national origin.
   8. Other species. Being able to live with concern for and in relation to animals, plants and the world of nature.
   9. Play. Being able to laugh, to play and to enjoy recreational activities.
   10. Control over one's environment.
   (a) Political. Being able to participate effectively in political choices that govern one's life and having the right of political participation, protection of free speech and association.
   (b) Material. Being able to hold property (both land and movable goods), having the right to seek employment on an equal basis with others and having freedom from unwanted search and seizure. In work, being able to work as a human being, exercising practical reason and entering into meaningful relationships of mutual recognition with other workers.

This paper reflects and locates the way in which my research has moved from a humanist transformative research to transformative research for social and environmental justice. My approach to MMMR draws on Romm (2018) and can be characterised simply as follows:

- Post Positivist approaches try to combine methods to test hypotheses and find the truth.
- Constructivist approaches re-present narratives (see Hesse-Biber 2010) to enable people to have a say and to define their own realities through their narratives.
- Transformative approaches strive for justice for people.
- Expanded Pragmatists (including researchers, thinkers and practitioners)[9] who strive to achieve the best outcomes for people and the planet and who are aware that dualism is imposed on nature and is not a characteristic of the brain, the body or nature and that the more we are able to weave together the strands of connection the better. The move from binaries to flows needs to be appreciated in thinking, design and practice. Policy makers need to learn from the wrong turns taken by misunderstanding our place and role as stewards within natural systems.

Flinders University has two metaphors (that I know of) that are addressed through sculpture and art embedded in the steps to the central space addressed in the central hub space:

- A colonial one—Matthew Flinders, the explorer who took risks, had minimal respect for rules and turned his mistakes into opportunities.
- An Indigenous metaphor from Kaurna leader Uncle Lewis Yerloburka O'Brien: 'When the outer world and the sky connect with the water the two become one'.

When we look to the horizon, we need to find the interconnections. Thinking and emotions matter. We can go so far as to say that emotions affect the biology of our cells and so it can be said that they shape physical matter. When we are angry or happy, it affects the human body (Pert 1999), and the next step in the argument is that they shape the environment on which we depend.

Thus, design needs to be understood systemically, and we need to recognise that thinking and emotions matter. Thinking affects molecules in the human body, so too our thinking shapes the conceptual pathways we create in our neighbourhoods, workplaces and wider environment. As stewards human beings we have the ability to create or to destroy. The more we appreciate that thinking matters, the more likely we are to live in ways that regenerate life and creativity. When we look to the horizon, we need to find the interconnections. Thinking and emotions matter. We can

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[9] I draw inspiration from First Nations, critical philosophy such as Spinoza, Deleuze and Guattari, designers such as Gunter Pauli and scientists such as Susan Greenfield and Candace Pert. Whereas Spinoza and Nietzsche denied the place of God in nature and instead said nature is the same as God, Wangaari Maathai sees god in nature and so the sense of the sacred is retained and in many ways can become a source of inspiration in everyday life. Descartes notion — 'I think therefore I am' was taken up by social scientists who borrowed from biology (which they misunderstood) and then social sciences started to emphasise binary oppositions.

go so far as to say that they shape the human body (Pert 1999) and the next step in the argument is that they shape the environment on which we depend.[10]

What is the problem represented to be? (Bacchii 2009)

'What if' academic and vocational learning were to apply the policy ideas of Wangari Maathai, Donna Mertens, Vandana Shiva, Donna Haraway, Andrea Nightingale, Sharlene Hesse-Biber or Deborah Bird Rose, Thomas Piketty and Gunther Pauli who, for example, show leadership through reframing policy that takes into account discourses, power and the importance of acknowledging the way in which people make sense of their world. Multiple mixed methods can be conducted across the full spectrum of approaches with varying emphasis depending on one's assumptions, values and area of concern. Neo-Marxists such as Michael Hardt make the case for the adaptability of human nature and culture.

Power of Policy Narratives: A Vignette to Focus the Discussion

This morning I was teaching a student via skype who is currently based in Nairobi. I shared the story of my attending a discursive, planning meeting in South Australia for people who wished to share policy and business ideas or who had been invited on the basis of winning an award for research.

A tent provided space for engagement by invited delegates. The experience was fulfilling for those who were invited. As an invited delegate (who had submitted an application to a competition of best ideas), I had listened to panel discussion of best practice ideas by invited experts, and I had been invited to share some of my own.

But as I left the event, I saw a group of Aboriginal Australians sitting in the shade of a tree on North Terrace. They were being questioned by uniformed police. The experience led me to ask: what are the policy silences in the structure of 'open state events'? How could the situation be addressed? (Fig. 3.1)

First Australians Outside the Open State Conference in Adelaide

The country on which we were meeting had been their place long before Australian settlement. Acknowledgement of country is an obligatory courtesy that is nearly always acknowledged at state-sponsored events, but the issue of constitutional recognition[11] remains unaddressed. Racial categorisations remain a basis for discrimination within the constitution, and recognition of First nationhood within this document could perhaps be translated into everyday interactions.

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[10] I share in common with Deleuze and Guattari (to the extent that I understand their thinking) a desire to do transformative praxis that heals conceptual and practical divides.

[11] To cite Constitutional Recognise: Since 2010 there have been two expert committees: the Expert Panel and the Referendum Council, which have consulted and reported on constitutional recognition and the process to the parliament. The Expert Panel—which included Indigenous and

Fig. 3.1 Aboriginal Australians outside the Open State Conference in Adelaide. Source: author's own photo

In preparation for a class for incoming international students on Indigenous policy issues, I researched the latest in a series of nine reports entitled: 'Closing the Gap Report'. Whilst there has been improvement, most of the health and employment benchmarks have not been met. But the numbers of Year 12 students who have passed matric have been met. Systemically this could have a flow on effect.

The following ABS projection did not mention that at invasion the numbers were in the region of 700,000 or more. Only in recent years, living conditions have improved, and more people are identifying as being Indigenous:

> Aboriginal and Torres Strait Islander population may exceed 900,000 by 2026 (Media Release)[12]

Significantly, only 3% of Australians are Aboriginal and Torres Strait islanders and it will take a few more decades for the numbers to return to pre-colonisation.

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community leaders, constitutional experts and parliamentarians—consulted extensively across the nation and reported to the Prime Minister in January 2012. The Panel recommended that Australians should vote in a referendum to **remove** Section 25, which says the States can ban people from voting based on their race; **remove** Section 51 (xxvi), which can be used to pass laws that discriminate against people based on their race; **insert** a new section 51A, to recognise Aboriginal and Torres Strait Islander peoples and to preserve the Australian Government's ability to pass laws for the benefit of Aboriginal and Torres Strait Islander peoples; **insert** a new section 116A, banning racial discrimination by government; and **insert** a new section 127A, recognising Aboriginal and Torres Strait Islander languages were this country's first tongues whilst confirming that English is Australia's national language.

[12] http://www.abs.gov.au/ausstats/abs@.nsf/Latestproducts/3238.0Media%20Release02001%20 to%202026?opendocument&tabname=Summary&prodno=3238.0&issue=2001%20to%20 2026&num=&view=

"Aboriginal and Torres Strait Islander population may exceed 900,000 by 2026 (Media Release)"[13]

The ABS projection did not mention that at invasion the numbers were in the region of 700,000 or more. Only in recent years, living conditions have improved, and more people are identified as being Indigenous. Instead of valuing profit, we need to think quite differently in terms of the so-called wellbeing stocks (Stiglitz et al. 2010).

Deleuze and Guattari (see Bogue 1989) stress that people need to have the right to say what the problem is and then to suggest ways forward. The ability to make connections and to increase the size of conceptual assemblages is part of the process of developing critical capability. Also the ability to unpack the genealogy of power is important to find out who decides and why and who is included or excluded and why.

By reading the policy that is already in place, we can understand the assumptions and values that underpin it by unfolding the values of diverse stakeholders and sweeping in the social, cultural, political and economic values of the approach (McIntyre-Mills 2017).

Metaphors for Transformational Research to Support Systemic Interventions to Complex Policy Challenges

Metaphors provide an alternative way of seeing and interacting. The section begins by drawing on Yap and Yu (2016) and building on past research (McIntyre-Mills 2008; McIntyre-Mills et al. 2014; McIntyre-Mills 2017) and stresses the importance of addressing the following questions:

- What is wellbeing perceived to be from the standpoint of diverse stakeholders?
- By what process will the wellbeing measures be decided?
- Who makes those decisions?
- So what difference does engagement make for perceived wellbeing?

My research explore systemic intervention to support social, economic and environmental transformation to protect living systems of which we are a strand. Participants in systemic intervention (adapted from Midgley 2000) aim to be a node in a network of relationships that are grown through systemic conversations, two-way learning, joint research, PhD supervision and collaborative inquiries with my graduates and their students to who the baton has been passed. The approach has the advantage of scaling up through a process of exponential growth as more nodes and networks are added to the endeavours to foster pathways to social, cultural, political and economic wellbeing.

The country on which we are meeting has been Kaurna land before Australian settlement. Acknowledgement of country is an obligatory courtesy that is nearly

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[13] http://www.abs.gov.au/ausstats/abs@.nsf/Latestproducts/3238.0Media%20Release02001%20 to%202026?opendocument&tabname=Summary&prodno=3238.0&issue=2001%20to%20 2026&num=&view=

always acknowledged at state-sponsored events, but the issue of constitutional recognition[14] remains unaddressed.

Racial categorisations remain a basis for discrimination within the constitution, and recognition of First nationhood within this document could perhaps be translated into everyday interactions. In preparation for a class for incoming international students on Indigenous policy issues, I researched the latest ninth 'Closing the Gap Report'. Whilst there has been improvement, most of the health and employment benchmarks have not been met. But the numbers of Year 12 students who have passed matric have been met. Systemically this could have a flow on effect. Only one of the seven benchmarks has been achieved.

Significantly only 3% of Australians are Aboriginal and Torres Strait islanders, and it will take a few more decades for the numbers to return to pre-colonisation. 'Aboriginal and Torres Strait Islander population may exceed 900,000 by 2026 (Media Release)'.[15]

Mindful of the Ground Beneath Our Feet

This section explores metaphors that serve as reminders of ways to combine multiple mixed methods that can serve as starting points for designs (Hesse-Biber 2015). All we have is the ground beneath our feet. This was a phrase that continues to resonate after I heard it in the opening speech by Stephen Weitzman (2013) as a plenary speech at the 'Mindfulness Conference' in Stellenbosch, South Africa. It refers to the process of being grounded in a particular time and place and being mindful of the living system of which we are a part. This is the very antithesis of apartheid or separateness or thinking in terms of binary oppositions (Fig. 3.2).

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[14] To cite Constitutional Recognise:

Since 2010, there have been two expert committees: the Expert Panel and the Referendum Council which have consulted and reported on constitutional recognition and the process to the parliament.

The Expert Panel—which included Indigenous and community leaders, constitutional experts and parliamentarians—consulted extensively across the nation and reported to the Prime Minister in January 2012.

The Panel recommended that Australians should vote in a referendum to:

Remove Section 25—which says the States can ban people from voting based on their race

Remove section 51(xxvi)—which can be used to pass laws that discriminate against people based on their race

Insert a new section 51A—to recognise Aboriginal and Torres Strait Islander peoples and to preserve the Australian Government's ability to pass laws for the benefit of Aboriginal and Torres Strait Islander peoples

Insert a new section 116A, banning racial discrimination by government

Insert a new section 127A, recognising that Aboriginal and Torres Strait Islander languages were this country's first tongues whilst confirming that English is Australia's national language

[15] http://www.abs.gov.au/ausstats/abs@.nsf/Latestproducts/3238.0Media%20Release02001%20to%202026?opendocument&tabname=Summary&prodno=3238.0&issue=2001%20to%202026&num=&view=

The logic of commitment in the context of Earth is expressed with great integrity and beauty in many indigenous knowledge systems. The Australian Aboriginal philosopher Mary Graham (2008) writes that indigenous cultures of land and place are based on two axioms: the land and the law; and you are not alone in the world. These two axioms can be heard as an indigenous ethic and practice of connectivity. The second axiom—you are not alone—situates humanity as a participant in a larger living system. The first—land is law—requires all living things to recognise and submit to the law of the living world. (Bird Rose 2015: 4)

The project in West Java discussed in chapter 7, volume 2, McIntyre-Mills et al. (2019) *'Democracy and Governance for Resourcing the Commons: Theory and Practice on Rural-Urban Balance'* addresses the Sustainable Development Goals3 through addressing job creation in sustainable development and through linking the ethical production of coffee with Animal rights for civit cats, the Indonesian Diaspora and business development opportunities in Australia.

The notion of thinking about the consequences of our choices was explored in *Systemic Ethics* (McIntyre-Mills 2017) which flowed from mentoring by colleagues who explained the notion of caring for country whilst based in Alice Springs and

Adelaide. Mindfulness is fostered from the starting point or axiom: We can be free and diverse to the extent that our freedom and diversity does not undermine the rights of others or the environment. The test for systemic ethics is whether or not the decisions will impact current and future generations in a positive or negative manner and whether those who will be affected have been considered or represented as part of the decision-making process.

Working in a grounded manner requires being the change through thinking about what we already have in terms of material and nonmaterial resources, what we need and what thinking and actions we can change to enhance personal and interpersonal wellbeing. Then we can think about the changes we have made and the extent to which the change is positive or negative. Sometimes we can only work out the implications of our choices as they unfold in context. This requires mindfulness and responsiveness to the barriers (internal and external) and striving towards strategic change through being the change, doing things differently, having faith in oneself and others, hope and determination, giving time and resources and redistributing resources (material and nonmaterial where possible).

These pictures are from my personal album of visits made during my life in the Northern Territory. On a hot day, we visited a small mission church outside Alice Springs. Whilst it is now a respected meeting place at Hermannsburg Mission that remains well regarded by many, it played a central role in trying to change the way in which people viewed themselves in relation to others. As the participants in the recent documentary[16]' 'The Song Keepers' on the Central Australian Lutheran Choir stressed, those who settled at the mission learned to live according to two cultures, rather than giving up their own culture. They learned the German hymns taught to them in the words diligently translated with Strehlow into local Arrernte dialects. In an era of a misplaced sense of entitlement, Strehlow ensured that children would not be taken away by the government. Although 'Western civilisation' was a goal, Strehlow ensured that local dialects were used as a basis for instruction so that two-way learning was indeed possible. The 'boomerang Australia-German tour' of the women's choir from Central Australia to villages in Bavaria helped to underline that Aboriginal Australians have kept their own identity whilst showing how their deep religious faith could demonstrate forgiveness to the colonists and to those in their own community who had caused them to suffer. One woman related how she would not have survived, as she was the child of mixed heritage. Another said that her own son would have been removed from her if she had not found refuge at the mission. The stories they told explained what they had gained and lost as result of colonisation. Relationships between First Nations and colonists ranged from violent to patronising. They were based on a presumption of superiority (even when it was clear that the colonisers had much to learn from the local people) when he was trespassing on their territory. The issue of violence, rape and oppression remained background themes that were not raised in the context of narratives of forgiveness.

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[16] The Song Keepers Documentary; see http://www.sant.lca.org.au/2018/03/31/central-australian-

A critical reading of the early history of South Australia by Rudolph (2013), based on the diaries of Edward John Eyre, for example, demonstrates how relationships across settlers and First Nations differed and the extent to which compassion was shown by local people to Eyre (appointed in 1841 as local protector and magistrate by Governor Grey) but who despite concerned about the fact that Aboriginal people could not testify in court and despite his friendliness and lack of bias (for the time) nevertheless regarded them as 'children of the wilds', to cite Rudolph 2013: 224):

> Having unsaddled the horses, we set to work to dig holes to water them. The sand, however, was very loose and hindered us greatly. The natives (sic), who were sitting at no great distance, observed the difficulty under which we were labouring. One of them, who appeared the most influential among them, said something to two of the others upon which they got up and came towards us, making signs for us to get out of the hole and to let them in. Having done so, one of them jumped in and dug, in an incredibly short time, a deep narrow hole with his hands. Then sitting so as to prevent the sand running in, he ladled out the water with a pint pot, emptying it into our bucket, which was held by the other native (sic). As our horse drank a great deal, and the position of the man in the hole was a very cramped one, the natives kept changing places with each other, until we had got all the water we required. In this instance we were indebted solely to the good nature and kindness of these children of the wilds for the means of watering our horses. Unsolicited, they offered us their aid, without which we never could have accomplished our purpose….

Critical reviews of my own photos in conversation with critical friends from diverse cultures enabled understanding how others perceive the notion of what is 'sacred and profane', to use the concepts from Mary Douglas (1978). Perception is a matter of standpoint. The wearing of shorts to many is scandalous and likely to cause offence in the wrong context. In fact, the very presence of a woman in an unsegregated place of worship could be considered beyond the pale in a mosque.

But being able to go the extra mile to accept another's standpoint is a lesson that is worth practicing, and it can have positive ripple effects. The embodied social actor needs to successfully negotiate the basic symbols of dress and courtesy as the first steps in cultural engagement. I was invited to participate at an Annual Islamic Studies Conference in 2015. On arrival at the conference, I asked whether I should cover my head with a scarf and was assured that just as I accepted their culture, they accepted mine. I was the only person not wearing a head covering, but this gesture on their part was to demonstrate an acceptance of differences. Some of the key themes at the conference were the need to learn to respect different cultures and the need to avoid losing a sense of the sacred as a result of exposure to modern, urban life. The theme of protecting habitat and Indigenous ways of life in Kalimantan resonated strongly with my own perspective (Figs. 3.3 and 3.4).

Aboriginal Australians and other Indigenous peoples have resisted anthropocentrism and held onto the belief that human beings ought to be stewards and that we return to the Earth 'our mother'. The colonial mindset of imposing ways of knowing stems from hubris. Being hunters, gatherers and farmers connects people to a sense of dependency and a reliance on nature. Rituals of connection through art and dance connect people. They are a form of dialogue that reminds us that we are not alone in the world and not in control of nature. Instead we need to find ways to work with nature as strands in a living system.

Fig. 3.3 Relationships and negotiating cultural symbols, source: McIntyre-Mills (2017), taken by a fellow delegate Source: McIntyre-Mills (2017: 280)

This requires relearning a sense of our vulnerability and interconnectedness and hybridity (McIntyre-Mills 2017). The lack of 'sympathetic cooperation' (Terranova 2009 cites Lazzarato 2004) characterises competitive neo-liberalism, and the roots of the bio-political economy can be found in the conquest of people animals and nature.[17] This approach to economics is constructed by human beings, and the potential to appreciate the value of working with diversity and finding sources of abundance in difference provides the basis for a new transformation narrative.

The price paid by animal suffering is not highlighted in stories of colonisation. The notion that human rights needs to be extended (as suggested by Nussbaum's ten capabilities for sentient beings) resonates with a growing appreciation that all sentient beings ought to have lives that are worth living. By setting aside a sense of entitlement and enhancing a sense of solidarity, we can appreciate that we are a strand in a living system, rather than higher or lower beings (Fig. 3.5).

The use of various art forms is just one of the ways of knowing and appreciating diversity. It needs to be borne in mind, in order to address 'situated ways of knowing' to borrow the term from Donna Haraway (1991). Knowing can be emotional, spiritual, intuitive or instinctive. Poetry and symbolism can enfold multiple meanings,

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choir-film-captures-hearts/

[17]The journey by Eyre across the Nullarbor Desert (Rudolph 2013: 277) would not have been possible without them. Sheep were driven ahead of the party in the early stages and were consumed along the journey. Horses provided transport for the men and their goods and in one recorded instance when Eyre and his Aboriginal companion Wylie were said to have drunk the blood of his horse and later consumed it, when it was clear that putting it out of its misery would also help them to survive.

Fig. 3.4 Author in chapel at mission station. Photo taken by Michael Rook. A grave yard outside the mission station. Author's own photograph

Fig. 3.5 Spirituality and fertility at Kakadu, Author's photograph taken at Kakadu in 2001

and these can be used in ritual that helps to bind people together. By meeting together face to face, rituals can help create a sense of solidarity. This has been described by theorists such as Durkheim (1912) and Collins (2004) but also by Turner (1987).

Durkheim in 'The elementary fields of religious life' (translated by Fields 1995: 20) explains the function of religion:

> "Religion is …" in the way he does: "... above all, a system of ideas by which men imagine the society of which they are members and the obscure yet intimate relations they have with it."

Durkheim (translated by Fields 1995: 34) stresses that religion is:

> … a unified system of beliefs and practices relative to sacred things, that is to say, things set apart and forbidden-beliefs and practices which unite into one single moral community called a Church, all those who adhere to them.

Once we are open to appreciating diverse ways of knowing, we can recognise that we are interconnected energies of life (both organic and inorganic). Alan Rayner (2017), a biologist, has also recognised this in his work on fungi and other living systems. Flows refer to the way in which human choices shape the landscape of our daily lives and need to be understood as part of the situated knowledges that are valued or discarded. What we choose to value is translated into being through our thinking and practice and reflected in 'being, doing, having, *giving* and interacting' (adapted from Max-Neef 1991).

Strands of Experience in the Commons (Fig. 3.6)

> Bollier and Helfrich (2012: xii) stress:… "We are commoners—creative, distinctive individuals inscribed within larger wholes. … As the corruption of market/state duopoly has intensified, our very language for identifying problems and imagining solutions has been compromised…Such dualisms as 'public' and private and state and market and nature and culture, for example, are taken as self-evident. As heirs of Descartes, we are accustomed to

Fig. 3.6 Finding flows of shared energy to create a cascade economy based on an appreciation of interconnections. Author's photograph taken at the aquarium in Cape Town harbour in 2011

differentiating 'subjective' from objective' and individual from collective as polar oppo-
sites. …. Those either/or categories and the respective worlds we use have performative
force. They make the world. In their very moment we stop talking about business models,
efficiency and profitability as top priorities we stop seeing ourselves as Homo economicus
and as objects to be manipulated by computer spreadsheets. We start seeing ourselves as
commonors in relation to others, with a shared history and shared future. We start creating
a culture of stewardship and co-responsibility for our common resources while at the same
time defending our livelihoods. The commons help us recognise, elicit and strengthen these
propensities. It challenges us to transcend the obsolete dualisms and mechanistic mindsets.
It asks us to think about the world in more organic, holistic and long term ways…"

Each voice engaged in participatory democracy and governance becomes a node in
the network which grows exponentially as more voices are added and more resources
are shared. This is why generosity in sharing ideas is so important and why it is
important not to set up barriers to knowledge sharing.

This is different from binary oppositional thinking based on demarcation and draw-
ing lines of exclusion. As such it recognises that decisions (derived from Latin 'to cut')
need to be carefully made if we are to 'rescue the enlightenment from itself'. These
themes have been rehearsed in the West Churchman Series which discuss the impor-
tance of critical systemic approaches that are open to many ways of knowing. In this
sense it is very different from operations research and traditional systems thinking.

The cascade economy (Pauli 2010) refers to finding sources of abundance (and
sharing these as well as other sources of abundance through better distribution). It
also requires identifying more sources of abundance which may be regarded as
waste or sources of under-recognised diversity. Pauli continues to identify and share
ideas, some of which are translated into suggestions in this book, such as ethical
coffee production in West Java, ethical animal husbandry, mushroom farming, recy-
cling coffee grains, value adding to dairy farming and moving to other types of
farming with lower emissions in West Java. Eco tourism supported by ecological
homes with a low carbon footprint. All knowledge is situated and human knowledge
is of course situated as one of many ways of knowing. In a post humanist centred
world, we need to think (once-again) of ecology of mind.

Haraway (2016) reminds us that we are symbiotic. If we think about the implica-
tions for interspecies learning and non-anthropocentrism, we realise that we are
indeed inter-reliant as one of many species.

We exist only through others and symbiosis with other life forms. Ashby's rule
of requisite variety (Ashby 1956) is based on the notion that the complexity of the
decision needs to be matched by the complexity of the decision-makers. But it
should be revised to say that the complexity of the decision should be responsive
(and protective) of the context (within which we are a strand). This ensures the rel-
evance of the decisions.

The principle of subsidiarity similarly makes the point that decision needs to be
made by those who are to be affected by them. These principles underpin the
approach to transformational research. This means that people's perceptions are
placed at the heart of each contextual response.

Fig. 3.7 Reflections: Author's photograph taken near Alice Springs during the rainy season

Metaphor: Achieving Flows for Exponential Growth (Fig. 3.7)

Reconsidering Boundaries and Locating Expanded Pragmatism Within the Multiple and Mixed Methods Research (MMMR) Discourses

Drawing on and adapting Romm (2018), this can be characterised as follows:

'What is the problem represented to be?' (Bacchii 2009). My research uses multiple and mixed methods depending on the area of concern.[18] The following table is expanded, in order to locate my approach to teaching, research and praxis, namely,

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[18]A core theme that I explored at the symposium was the potential for regional areas and cities to become more productive as sites for food and water security rather than food and water deserts, through more creative use of technology together with creative partners that see food, energy and water security as feasible at the household level if supports are provided at the community, national and international level. How can the vulnerable become more resilient by addressing the systemic underpinnings of disadvantage? (Usamah 2014). Clearly, this has implications for the way we address public policy and human service governance and delivery and the way in which the Paris Climate Change Agreement (2015), UN Sustainable Development Goals (2014) and the UN Sendai Framework (2015–2030) for Disaster Risk Reduction are addressed through reducing the gap in life chances and enhancing social inclusion. Thus Goal 1 (end poverty) with specific implications for food, energy and water security, Goal 5 (gender inequality) and Goal 17 (creating partnerships) are particularly relevant to protecting the most vulnerable, whilst the United Nations Declaration of the Rights of Indigenous peoples (2007) provides a vital pathway for socially inclusive decision-making on habitat protection. We need to build on, explore and test existing conceptual tools in pursuit of a new architecture for democracy and governance (McIntyre-Mills et al. 2014; McIntyre-Mills 2017).

Table 3.1 can be conducted across the full spectrum of approaches

Positivist and post-positivist approach	Constructivist approach	Expanded pragmatist (EP) approach	Indigenous paradigm	Transformative paradigm
Ontology and axiology				
Mirrors reality as closely as possible	Represents truth (Hesse-Biber 2010)	The closest we can get to truth is through dialogue and testing out ideas with people[a]	Nature is vitally important, and human beings are part of the natural world and return to it. History is written into the landscape as a result of choices made	Ontology is based on the notion that research has a purpose and thus social and environmental shape the way the research is designed
Assumes truth exists	Narratives portray diverse life experiences	Expanded testing out of ideas	Nature is law. We are part of nature, and we need to listen and learn as interdependent parts of a living system	Assumes that through participation based on strategic decisions, change can be brought about through actions
Epistemology				
Scientific hypothesis testing and design based on experimentation	Ethnography, autoethnography, psychodrama, sociodrama, art forms for expression participant observation and narrative, action learning, participatory action research	Participatory action research drawing on multiple mixed methods. Working across disciplines and respecting space for difference	Narrative and oral history, science based on and informed by a respect for sacredness of country	Purposeful research that is informed by the participation of diverse stakeholders
		Echoes the Popperian notion of testing but assumes that experts do not know best and that truth is mediated within contextual experiences and shaped by nature	Being, doing, having and interacting are everyday decisions that matter. Thinking is translated into practice in the everyday choices we make	Requires careful reading of the social, cultural, political and economic context

Influences from literature and experience				
	Influenced by critical thinkers such as Spinoza, Deleuze and Guattari[b], Foucault, Marxism[c], Habermas, Donna Haraway, West Churchman, Max-Neef		Influenced by the Indigenous mentors, Adelaide Dlamini, Veronica Gumede, a nurse in KanGwane, Olive Veverbrants and Peter Turner, Bevin and Daphne Wilson, Doug Morgan, Kim O'Donnell, Deborah Bird Rose	Influenced by Paulo Freire, Donna Haraway, Yoland Wadsworth, Monica Wilson, role models in the sociology department at University of Cape Town who were jailed for beliefs, Stewart Hall
Implications of the approach for social and environmental justice				
Neutral—an approach that is difficult to justify if one accepts that all research takes place in a political environment But nevertheless plays a vital role in terms of providing a foundation for understanding a view about the world that has helped to extend many disciplines in the sciences	Priority is to give a voice to the silenced, in order to understand their reality and to appreciate and respect their views as a first step for policy and practice	Strives for better as in socially and environmentally just policy for people and the planet. Does not abandon ideals or the search for better decisions to address the limitations of an existing situation and existing circumstances. It accepts that we work with objective, subjective and intersubjective forms of knowledge	Non-anthropocentric nature decides and stewards speak for country and advocate for its protection and regeneration. This goes beyond the sustainability approach because we are already living 'beyond the limits'	We are the boundaries, and we can make a difference if we decide to find a way. The approaches can vary from reframing research to developing small pilots that demonstrate alternative ways of being, doing, having and interacting

Sources: informed by: Romm, N R A. 2018. Responsible Research Practice: Revisiting Transformative Paradigm in Social Research. New York, Springer, Chapter 9. A version of the table (without the indigenous paradigm) first appeared in:

Mertens, D.M. (2015). Research and evaluation methods in education and psychology. Fourth ed. Thousand Oaks, CA: Sage

Mertens, D. 2017 *Mixed methods design in evaluation.* Sage. London

Mertens, DM and Wilson, A.T. *Program evaluation theory and practice: a comprehensive guide.* New York. Guilford Press

Hesse-Biber, S. and Johnson, B. 2015 *The Oxford Handbook of Multimethod and Mixed methods Research Inquiry.* Oxford UK. Oxford University Press

[a]The need to address the emotions of Australians who feel 'left behind' is now the clarion call of many conservative thinkers

Table 3.1 (continued)

[b]The key aspects are: 'Might right'—Genealogy of power, Analysis of discourses, Assemblages of meaning, making connections and critical analysis of discourses—requires both qualitative and quantitative data and an understanding of how it is obtained.

[c]Michael Hardt (2010) in conversation with Astra Taylor as part of her interview on 'the Examined Life' stresses the need for ongoing training for participatory democracy and the need to achieve transformation. His approach stresses revolution, but you cannot demonstrate empathy and democratic values through violence, so it needs to be achieved as peacefully as possible. He stresses that a great deal of the arguments about morality, human rights and transformation potential rests on a debate about whether humanity is capable or incapable of self-rule. He stresses that Bolivia and Ecuador are places to watch, for example, of how to live differently—because of their constitutional protection of the planet—although they have some failings and although the rhetoric perhaps outweighs the reality of what has actually been done to protect the forests and to limit mining. However, as Hardt stresses they are indeed 'places to watch', for example, as to how to do better. However, what is even more important is the worldview based on a belief in 'Pachamama' and the legal transformations that could eventuate from the spiritual connection to the land. I would argue that the hypocrisy of appearance needs to be avoided through implementing ways to ensure that the ideals are translated into practice in an open and transparent manner.
https://m.youtube.com/watch?v=f0IopdH1e3s

an expanded pragmatist approach as detailed in *Systemic Ethics* (McIntyre-Mills 2014) (Table 3.1).

Multiple mixed methods can be conducted across the full spectrum of approaches with varying emphasis depending on one's assumptions, values and area of concern. Neo-Marxists such as Michael Hardt make the case for the adaptability of human nature and culture.

The papers and the contributions by McIntyre-Mills and her team explore wellbeing in terms of the relationship between functioning and capabilities (Sen 2000; Nussbaum 2011) by enhancing space for social inclusion and recognition of *both diverse standpoints on wellbeing and shared meanings*. The twofold aim is to:

(a) **Protect diversity** and areas of common ground in the interests of current and future generations by focusing on rights and responsibilities to protect sustainable employment that ensures food, energy and water security.
(b) **Explore ways to protect 'wellbeing stocks'** (Stiglitz et al. 2010) for current and future generations. One of the ways is to introduce approaches to support full-time employment so that unemployment becomes a relic of the past. Thus the research addresses perceptions on what it means to live well in ways that protect people and the planet, what constitutes representation of diverse voices (Hesse-Biber 2010) and the regeneration of social, environmental and economic fabric (McIntyre-Mills 2017) across different age cohorts. I ask:

Why do we need to walk a different path?

How can alternative social, economic and environmental pathways be mapped in ways that honour local wisdom?

Sometimes only emotional instinct can lead one to making connections that will make a difference. I have tried to convey this through photographs that try to connect with others including sentient beings that fall outside the category of domestic animals and farm animals.

The research dimension is linked with connecting with others at many levels and earning trust, which we try to maintain. At the end of the day, a healthy dose of humility is required to appreciate that no matter how hard we try, we may not succeed in 'representing truth', but we may succeed in 'representing the voices of others' or trying to raise to awareness the rights of all sentient beings to a life worth living (Nussbaum 2011). This is the point made by Hesse-Biber (2010). Nevertheless my approach to expanded pragmatism tries to find the most plausible pathways based on weighting the perceptions of many participants, until a sense of saturation is achieved in terms of an area of concern. Ongoing data collection through digital engagement that empowers end users may be a way forward to develop big data that can be monitored by rights based groups in the interests of social and environmental justice, as opposed to their metadata just being used to develop algorithms for control and profit.

The question is how to encourage people to reduce consumption in ways that protect both people and the planet is the policy and governance conundrum that needs to be informed by understanding diverse representations of consumption?

The hypothesis is that participation through awareness and consciousness-raising about ethical (a) food, energy and water consumption and (b) the ways in which people value other species and the environment (McIntyre-Mills 2010, J. of Consciousness Studies) will influence the extent to which the United Nations SDG are implemented, revised and extended to include regeneration. This hypothesis is based on the notion of neural plasticity in that the brain shapes the environment and, in turn, is shaped by social and environmental factors (Bateson 1972; Greenfield 2000).

Multiple Perspectives on 'Health, Healing and Disease' in South Africa

I share in common with Deleuze and Guattari (to the extent that I understand their thinking) a desire to do transformative praxis that heals conceptual and practical divides. My introduction to binary oppositions of us/them came about through my first research project as an honours student at the University of Cape Town. I was asked by the chief psychiatrist to do research to address the spike in schizophrenic patients who were being diagnosed and admitted to Valkenberg Hospital for the mentally ill. The issue was that people with a host of poverty-related illnesses described their condition as Intwaso, being called by the ancestors. Biomedically trained Xhosa nurses translated literally, to enable patients to access care and a square meal. Many of the patients also had symptoms of TB, endemic in the population. This was because many were HIV positive.

I reframed it to address the needs of people living in Guguletu (Section 3) and networking out to the so-called homeland area of Transkei to follow the network of one set of migrants to understand their life chances and the context of pass laws and migration in South Africa. The lesson I learned was the need to locate illness within the social, cultural, political, economic environment (McIntyre-Mills 2000; McIntyre 2004).

Systemic intervention enables working with groups of people as detailed in a range of publications to work on areas of concern. It can help to enable 'joining up the dots', but it does not necessarily change mindsets. The values that shape the way in which we live are a choice made by people. The 'us/them' mentality remains a challenge. People need to realise that there is no us/them as we are part of a continuum of life, to put is very simply. I have tried to convey this using lessons and metaphors drawn from what I have learned from working in many cultures and across disciplines about the relationships across 'mind and body', individuals, families and communities, people and plants and animals and the environment. I learned from the Xhosa-speaking Indigenous healer, Adelaide Dlamini, who explained this and mentored me during 1987–1989 when undertaking early research on wellbeing, human rights, justice and mental health. The sense of interconnection was explained in terms of the philosophy of Ubuntu and the everyday practice of assisting those who sought work in Cape Town during the apartheid era, when South Africans were denied citizenship outside the so-called designated homeland regions. Only those who held a 'dompas', meaning literally 'stupid

pass', the reviled pass issued to those who were 'legitimately employed' in the Cape were permitted to be there. The result was that many from the rural areas struggled to survive in the cities and relied on the informal networks of reciprocity in the townships. The Amagira or diviners played a role in this regard; many of them also played the role of Apostolic or Zionist healers in the African-independent churches as detailed by Martin West (1978), who supervised my work (Mills 1989). The role of ritual provided a way for those who were struggling mentally and physically to obtain both practical support in the form of nutritional meals and emotional support from the members of the diviner school and the wider community. The initiates followed an elaborate process of healing marked by stages symbolised by clothing that indicated being novices, to being '5 minutes to the hour' to wearing the full regalia of an empowered healer, symbolised by animal and plant materials with which they had connected through their dreams.

Each stage of the ritual (in which they participated for their own healing and the healing of others in the diviner network) involved pooling resources for animal sacrifice (and thus access to protein), drinking fermented maize beer (also very nutritious) and communal dance séances in which they reached out to the ancestors and the extended community as part of the journey. The healing rituals involved drumming and singing which induced an altered state of consciousness. As I recall the polyrhythmic drumming, I am drawn back to the small home of Adelaide in Guguletu, Section 3, not far from the local mosque.

The process of 'ukuthwasa' was 'being called by the ancestors' to heal themselves and others through sharing and caring for one another (Figs. 3.8 and 3.9).

On her left is a student who is '5 to the hour' as she has nearly completed her initiation. On her right two members are approaching the '5 to stage', and on the far right is a novice who is dressed in white to symbolise her vulnerability and liminality.

Fig. 3.8 Author's photo of healing ceremony for a novice led by Adelaide Dlamini in the back yard of her home in Section 3, Guguletu

Fig. 3.9 Author's photo of members of the diviner network led by Adelaide Dlamini

Tanks and Latrines to Address Water- and Sanitation-Related Disease in a Disaster Area

My D.Litt et. Phil. thesis on water and sanitation related disease in Pongolo, border of Swaziland and Mozambique whilst working at the Human Sciences Research Council, Development Bank of Southern Africa. I worked in collaboration with the CSIRO who were responding (belatedly) to the WHO decade and enabled a group of men and women to set up the Boschfontein Water and Sanitation committee which was used to lobby the KanGwane government and eventually led to piped water being supplied to the village. An immediate intervention was enabling the training of a group of residents to learn how to make Ferro-cement tanks and toilets and to plant deep trench vegetable gardens using recycled waste at the Valley of a Thousand Hills in Natal. The team received the training and the moulds and built demonstration units at the school and the clinic. Members of the community were able to ask the team to work with them to provide tanks and toilets at their own homes. A rotational fund was set up to enable this to occur. It became depleted and conflict occurred amongst the members, but nevertheless the project did make a small difference to people's lives. This research is discussed in McIntyre (1997) and McIntyre-Mills (2000).

Homelessness and Advocacy for Street Children: Participatory Action Research

The participatory action research that I initiated in Pretoria in 1988 ensured that the problem of homelessness was reframed as an issue of social justice resulting from the apartheid state. The immediate welfare of the children and meeting basic and education and caring needs was the primary focus along with advocacy and laying

charges against the South African police with the help of Brian Currin, lawyer for human rights.[19]

Progressive Primary Health Care research was undertaken to formulate policy to address a range of interrelated challenges through prevention.[20] This multidisciplinary team held a series of focus group discussions which I helped to facilitate and then to write up. The aim of the rapid appraisal of public health issues focused on water- and sanitation-related disease, which impacted morbidity and mortality of women and children. We also addressed the implications of lack of energy supplies and the impact on everyday living for the majority of South Africans and the impact on the apartheid on migration control, leading to the separation of families and the spread of sexually transmitted diseases including HIV. The spread of TB was found to be endemic and connected to the spread of HIV and AIDS.

Case Study of Life Chances of Diverse Residents of Alice Springs and Environs: Systemic Praxis for Social and Environmental Justice

This case study 'Critical Systemic Praxis' (McIntyre-Mills 2003)[21] addresses quality-of-life chances in Alice Springs used multiple mixed methods to explore the power dynamics across diverse population ranging from narratives, poetry to

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[19] This research is discussed in McIntyre, 1997, McIntyre-Mills, 2000.

[20] Martin, G., McIntyre, J., Parry, C., Stewart, R., Tollman, S. and Yach, D. Published by Henry J. Kaiser Foundation. 1992 *National survey of health status, health services, research and training in South Africa*. (387-page report) commissioned by the Henry J Kaiser Foundation who contracted the Medical Research Council in 1990 to undertake the research. Contracted by the Medical Research Council. The long report was published as a book (120 pages). *Changing health in South Africa: towards new perspectives in research* by ISBN: 0-944525-08-3.

[21] Critical Systemic Praxis for Social and Environmental justice reflects on a range of projects in Alice Springs is written as a monograph. It details the life chances and stories of Indigenous and non-Indigenous Australians. I did wish to call it: Caterpillar Dreaming Butterfly Being.

As a result of the work in Alice I developed a response to health and wellbeing challenges pertaining to complex needs that had little to do with health per se and more to do with being marginalised and excluded. This was detailed in *User-Centric Policy Design to Address Complex Needs* (McIntyre-Mills 2008) and was funded by an ARC grant. I then extended the work with Southern Women's network in McIntyre-Mills, J. 2011, *Identity, Democracy and Sustainability*. The research on wellbeing was then scaled up through funding from local government which enabled me to do a small engagement project described in McIntyre-Mills, J with De Varies, D and Banchan, N. 2014. *Wall Street to Wellbeing: Joining up the dots through participatory democracy and governance to mitigate the causes and adapt to the effects of climate change*. By asking the question what if we were to scale up this research, I developed an alternative architecture for democracy and governance in a companion book: McIntyre-Mills, J 2014. *Systemic ethics and non-anthropocentric stewardship: Implications for transdisciplinary and cosmopolitan politics*. This in turn led to two further companion volumes entitled *Balancing Individualism and Collectivism* and a sole authored volume *Planetary Passport*. Both these recent volumes address a non-anthropocentric approach and develop a philosophy and approach to protect the commons.

expressive art, visioning workshops, focus groups and a survey. The different means of gender and culturally responsive engagement were important to address the needs of different age groups. The research addressed racial discrimination, human rights and the Disability Discrimination Act. The data helped to inform policy development and to address the very different life chances of different groups.

Narratives can draw together many themes in spiritual parables that provide a basis for learning that consequences affect living systems. The caterpillar dreaming story explains the creation of the McDonald Mountains that look like a caterpillar that has a habitat in the region of the McDonald Ranges opposite 'the Gap' in the range. By learning to see differently, we can learn from everyday experiences. One morning I was walking in the area opposite this Gap in the McDonald Ranges bordering the so-called Broken Promise Drive, called officially 'Cromwell Drive' which was built in a site sacred to the caterpillar. I saw a line of caterpillars walking head to toe up a ghost gum and shared the story with my mentor Olive Veverbrants an Arrernte elder, and we discussed the importance of preserving country for the wellbeing of this generation and the next. We are dependent on one another and on our land. We need a different approach to education, governance and democracy that transcends us/them categories. The resonance of regeneration and continuity is one that is lost when we use the resources of this generation and leave nothing for the next generation of life (Fig. 3.10).

The recently hatched caterpillars marched in single file joined head to toe up the bark of the ghost gum on the hillside opposite the Gap in the McDonald Ranges in the photo below (1999) (Fig. 3.11).

The ghost gum is located on the site overlooking the golf course estate on 'Broken Promise Drive', the name given to 'Cromwell Drive' by the caretakers of the land (Fig. 3.12).

The Gap in the McDonald Ranges is the site of Mparntwe or caterpillar dreaming. This is a conceptual diagram developed with participants of the Gap Youth Centre to address the perceived problems in Alice Springs (1999).

Systemic Intervention and Engagement Process

I have cast my mind back to some of the key themes developed in this volume. One morning I was walking in the area opposite the McDonald Ranges bordering the so-called Broken Promise Drive, because Cromwell Drive was built in a site sacred to the caterpillar. I saw a line of caterpillars walking head to toe up a ghost gum and shared the story with my mentor Olive Veverbrants an Arrernte elder and we discussed the importance of preserving country for the wellbeing of this generation and the next. We are dependent on one another and on our land. We need a different approach to education, governance and democracy that transcends us/them categories. The resonance of regeneration and continuity is one that is lost when we use the resources of this generation and leave nothing for the next generation of life. The next metaphor for planetary passport came from weaving; the work of the

Fig. 3.10 Ghost gum near
Cromwell Drive, Alice
Springs

Fig. 3.11 Golf course

Fig. 3.12 Reflection on the challenges using paint and photographs as a montage to reflect on the areas of concern

women at Neporendi was used as a metaphor for weaving together strands of experience that extends so-called triple bottom-line accounting and accountability to include a sense of ongoing, everyday commitment to being the change through our everyday choices. The Aarhus convention and Local Agenda 21 provide the policy background for the approach.

I then did research in South Australia with Neporendi leading to an Australian Research Council Grant to address complex health housing and social inclusion and scaling up the research with other small grants including a local government grant.

In many ways I do not think the critical systemic research is distinct from other ways of knowing. The open systemic interventionist approach appreciates that we can learn from our everyday experiences with all sentient beings and with the environment on which we depend. It appreciates that 'the whole is indeed greater than the sum of its parts', as Durkheim said, but that we also change the ground beneath our feet through our daily interactions with others. We also make the world we live in through these everyday decisions.

The realisation that identity is not just expressing who we are as individuals through 'being, doing, having and interacting' is also the realisation that as groups we can make a difference not just to the people we meet in our everyday interactions, but to the whole planet. This is because human beings have become so forceful collectively that they can change not only their own place on the planet, but the planet as a whole.

The realisation that we write our futures in the land, sea and skies is understood by all Indigenous peoples. Now that realisation is dawning in the era of the so-called Anthropocene, we are changing the fabric of life by our choices.

As a critical systemic thinker and practitioner, I work with, rather than within, a single paradigm. C. West Churchman's so-called design of inquiring systems approach (DISA) and the work of his colleague Werner Ulrich provide a questioning approach that helps to guide the design of research. The 12 questions provide a good meta-level approach to design when framing an area of concern by considering what, why and who to include and exclude in the research.

It is fair to say that as systems researchers we come from many different fields and my background is in sociology and anthropology so a case study approach to looking at an issue within the social, cultural, political and economic context is one that I have always felt comfortable with.

The questioning approach needs to be sustained through each phase of the research from deciding what to work on, why and how and with whom to assessing how to go about doing the research and then assessing and monitoring through all the stages to the 'conclusion'. Where the research begins and ends is of course also arbitrary, because if we see our lives and careers as a journey made up of forming relationships with people and places, then we remain open to continuing the research journey and learning from each project as part of an evolving programme of research that continues to cross fertilise ideas.

In my case I try to enable graduate students to address their research projects as opportunities for collaboration with me as a facilitator. They use the 12 DISA approach and an adapted form of soft systems mapping that extends the work of Checkland and Scholes (1991). I teach critical systemic thinking and practice through a subject at Flinders that invites students to address a response to an area of concern through thinking about the lenses that they need to consider when considering their concern and then honing in on the specific exploratory questions that they wish to ask combining a range of so-called mixed methods in a complementary manner that is appropriate to what they are working on with stakeholders.

They are then encouraged in some cases to develop a hypothesis that explores the relationships across variables. The option is to explore issues in depth, such as the meaning of a particular historical event or to explore big picture approaches to address complex needs of vulnerable groups of people, in order to make a case for policy changes.

I strive to embed critical systemic thinking in all the subjects I have taught ranging from governance and public policy, ethics and public administration to Indigenous policy. The PhD students I have taught have all used the critical systemic approach, and it has served them well as they have all managed to make a contribution through applying it.

Narratives can draw together many themes in spiritual parables that provide a basis for learning that consequences affect living systems. I came to the realisation that we need a different approach to education, governance and democracy that transcends us/them categories. The resonance of regeneration and continuity is one that is lost when we use the resources of this generation and leave nothing for the next generation of life.

The caterpillar dreaming story explains the creation of the McDonald Mountains that look like a caterpillar that has a habitat in the McDonald region. By learning to see differently, we can learn from everyday experiences. The experience of being in

the right place at the right time to learn about the caterpillar dreaming story was invaluable for me to gain an insight into what the place means to Arrernte Australians. This is tacit, experiential knowledge (Polanyi 1966) and the basis for gaining some insight into the meaning of the creation story linked with Mpantwe (caterpillar dreaming) and the relevance of the sacred site.

Learning from others through spending time and connecting with them is not just preferable from the point of view of good manners but vital if research is to be worthwhile. This requires thinking about what the research is for and why it is being conducted. Will it make a difference to social and environmental justice? Taking time to form relationships is the basis for transformative research. It is all the more important as relationships of trust break down in a neoliberal economy which defines 'time is money'. Policy research (or any other kind of research at a neoliberal university) can lapse into consultancy for industry or industry collaborations based on rushing in and taking notes or making a recording or a video before speeding off to the next engagement.

Connecting with others can be through movement (including walking and dance), artwork or creating meals and eating together (Fig. 3.13).

These photos taken by the author give a sense of the engagement with mentor Daphne Wilson who led the co-ordination activities at Neporendi in South Australia in 2006 (Fig. 3.14).

This is a picture of the artwork we created in Alice Springs at a time when there was a very high rate of suicide amongst young people. I was asked (unofficially) to help address the issue. I suggested that collecting data on this issue could make

Fig. 3.13 Doing research and being part of community activities

Fig. 3.14 Commissioned graffiti art to express what made young people happy and 'what works'. Art work created by young people in Alice Springs 1999

Fig. 3.15 Working with Pretoria Street Children in 1988, author's photograph of a volunteer and participant

things worse unless we were very careful. So I suggested an art project at the Gap Youth Centre where we invited young people to participate in painting a mural about the things that made them happy (Fig. 3.15).

A similar approach was used during the worst days of apartheid when I worked with young people who were at risk from the police. We found out the issues through asking children to tell us what was happening by drawing pictures. The funding followed a data collection process which occurred whilst doing participatory action research to meet basic needs. Food and access to a shower was provided with the help of the Salvation Army in Sunnyside, Pretoria where this photo was taken in the

basement that was converted into a refuge where 'maize porridge, vegetable and meat stew' was served each evening and volunteers from University of South Africa and embassies (American, British, Greek) met to hear their stories which led to action taken with Lawyers for Human Rights.

Figure and Ground: A Reflection on the Systemic Journey

My research journey has sought a better balance across social, cultural, political, economic and environmental interspecies concerns to ensure a sustainable future for current and future generations. The ecological citizen uses a 'planetary passport' to track the distribution and redistribution of resources in the interests of social and environmental justice. Engagement links high-level challenges with individual perspectives, facilitating nuanced investigation of the complex ethical challenge of closing the gap in life chances.

Held's Global Covenant (2004),[22] the Aarhus Convention[23] (1998), the UN Local Agenda 21[24] (1994) and the Paris Agenda on Climate Change (2015) provide the policy background for a public engagement approach that strives to enhance both sustainable and regenerative living through the mitigation of climate change through reducing the size of our carbon footprints.

Whilst the United Nations Declaration of the Rights of Indigenous peoples (2007) provides the basis for scaling up a voice for Indigenous people, the UNDRIP provides one of the ways in which First Nations can try to protect habitat. The bricolage or weaving together of policy provided the intellectual context along with the teamwork spanning cultures, disciplines and methods. The innovation is the result of cross-cultural mixed method research in teams and the inspiration from colleagues associated with the International Systems Sciences.[25]

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[22] It provides a framework for social democracy that supports social and environmental justice. But it needs more work to protect the commons as the basic fabric of life that should not be commodified.

[23] It stipulates that all citizens living and working within the European Union have the right to access information on the environment and that freedom of information should be followed by member states. If citizens have concerns, they should be heard at the local government level, and if not satisfied they can seek resolution through the European parliament or the European Criminal Court. The Aarhus convention is discussed by Florini (2003) and in *Planetary Passport* (McIntyre-Mills 2017) suggests that the UN Local Agenda 21 could provide a way to extend it to a broader level.

[24] UN Local Agenda 21 outlines social, economic and environmental indicators based on engaging the public.

[25] The work of Alexander Christakis has been vital in inspiring the development of participatory democracy and governance who in turn inspired my informatics collaborator, Dr. Denise De Vries. Another key inspiration is Dr. Allena Leonard whose experience of working on viable systems as a form of global governance was inspirational and who introduced me to the work of Donna Haraway. The work of Alexander Christakis has been vital in inspiring the development of participatory democracy and governance who in turn inspired my informatics collaborator, Dr. Denise De Vries. Alexander Laszlo and Kathia Laszlo are also sources of wisdom on the interconnectedness of all living systems.

Capitalist, urban cultures forget people and country. When I experienced and listened to the story of caterpillar dreaming, butterfly being, it resonated and I began to understand the importance of regeneration and protection of people and habitat. The resonance of regeneration and continuity is one that is lost when we use the resources of this generation and leave nothing for the next generation of life. The next metaphor that helped shape 'planetary passport' came from weaving. The work of the women at Neporendi was used as a metaphor for weaving together strands of experience that extends the so-called triple bottom-line accounting (Elkington 1997) and accountability to include a sense of ongoing, everyday commitment to being the change through our everyday choices.

Informed by Multiple Approaches

If we accept that a 'design of inquiry approach' (West Churchman 1971) helps us to think about our thinking and how we know what we know, then it is quite sensible to work with rather than within an approach and to consider the environments which shape our ways of knowing.

- Do we know by competing and playing the game?
- Do we know by sharing and making new ways of connecting with others?

If we accept that an area of concern dictates what we do, who we work with and why, then it is quite sensible to use mixed methods that combine qualitative and quantitative approaches in a sensible manner that may include narratives, doing in-depth research over time, participatory action research with people, action learning based on reflecting on what we have learned and then engaging in conversations with others to find out if one has understood appropriately. Perhaps we could also learn by analysing meanings of text, landscape, art, etc. to those with whom one is working and trying to understand it from many different viewpoints. After all C. West Churchman said:

> The systems approach begins when first you try to see the world through the eyes of another.

But here I need to voice some caution. It is not a good idea to place one approach (however valuable) on a pedestal and not to continue to develop in context with people. We can never hope to fully appreciate and understand unless we are open to many ways of knowing if we are to 'rescue the enlightenment from itself'.

So the academic inspiration from the Systems Sciences has been invaluable. My meeting with John P. Van Gigch was very important to my learning about meta-decision-making in research. And I doubt I would have every come to an ISSS meeting if I had not been encouraged to do so by Norma Romm. I think the first meeting was in 1998 at Asilomar where I met up with John and Norma again after some years. Now I must backtrack a bit (please forgive my discursive style); I met Norma Romm when doing my MA at University of Cape Town. She acted as a (unofficial) mentor for my research on 'Health, Healing and Disease in a South

African Township'. This research was systemic in that it traced the life chances of people who had sought treatment at Valkenberg Hospital for the mentally ill and were living in Guguletu Section 3 in Cape Town. The hospital was situated nearby this so-called township of small match box houses.

Seeking medical help from the nearby hospital was a survival strategy during the apartheid era of segregated living. The Xhosa-speaking nurses interpreted the statements: The ancestors have turned their backs upon me and the voices that some said they were hearing as 'schizophrenia' which then entitled people to access treatment and support within the hospital. By working with the nurses over a few weeks at the hospital, I learned more about the survival strategies and travelled with one of the nurses who introduced me to Adelaide Dlamini who in turn introduced me to her initiates who formed part of the so-called diviner network.

It did not take long to find out that many forms of treatment were sought because under apartheid it was one of the only forms of welfare provided. I interviewed householders within Guguletu section 3 to understand the extent of poverty and poverty related diseases rooted in the politics of Apartheid. Men worked in Cape Town and had to leave their families in the so-called 'home lands' because they could not bring them to Cape Town. This provided the context for the spread of HIV. I followed up the networks of family to the Transkei and Ciskei where they came from and travelled there during the university vacation in my burnt orange VW Beetle.

One of the family members who returned to the Ciskei performed an 'Inkomo ye silo' ceremony, meaning a cow for the ancestors. This sacrifice was presided over by an igira and mirrored the ceremonies that Adelaide Dlamini performed in the urban environment. It provided an opportunity for sharing protein and reinvigorating community networks for a migrant worker. He was one of the lucky ones who earned enough to return to the rural area and able to sacrifice a cow called 'uSea Point' named after a popular beach side area in Cape Town.

The sharing of food in the urban area was important for those living in poverty along with the Ubulawu or beer, made of maize. It too helped to recreate a sense of kinship amongst those displaced within their own land. They were indeed lost in the city and required to show a pass in terms of the apartheid act.

The research led to my working with David Yach as part of the Progressive Primary Health Care Network funded research at the Medical Research Council Project. HIV along with poverty-related diseases was a focus for our research which aimed at making a policy and political statement.

Survival in apartheid cities is a theme for research I did in Pretoria as a result of the large number of children living on the streets in Pretoria which involved practical interventions such as working with a network to set up a home and with lawyers with human rights to lay charges against the police.

Practical systemic intervention to address an area of policy concern has been the leitmotif to date. I was invited to address water- and sanitation-related disease whilst working at the Human Sciences Research Council. This led to the setting up of an action committee with people living in KanGwane and documenting the process.

User-Centric Policy Design to Address Complex Health Housing and Social Inclusion in South Australia by with and for Aboriginal Australians at Neporendi

The case study entitled *User-Centric Policy Design to Address Complex Needs* (McIntyre-Mills 2008) was conducted by, with and for Neporendi in the Southern Region and spanned the social sciences and used soft systems mapping that was used to weave together the strands of lived experience together. It addressed complex health housing and social inclusion needs and decision-making to social, economic and environmental decisions.

I worked across service users and providers. It built upon prior research in the NT that stressed the need to work and rework boundaries to address social, cultural, political, economic and environmental boundaries (McIntyre-Mills 2003).

I spent many months gathering data through participant observation as part of Neporendi in Adelaide, South Australia. Activities included bead making, making and sharing lunches, a visit to an art gallery, painting in a group, gardening and listening to stories whilst sitting alongside individual women and in-groups. This was important as a direct gaze can be regarded as confronting. My role was to listen and to represent the views of the participants as closely as possible.

The next step was to work with the men who met me directly through my Aboriginal male colleagues and indirectly as they came and went to the drop in centre to different activities. The individual stories were documented in detail as were the focus group conversations on complex health housing and social inclusion.

Once many pathways had been documented, factor maps were created. From these factor or bubble maps, people were asked to identify whether their pathways could be traced, and if not, they were asked to add the factors to the existing maps or to draw new ones. Several iterations were undertaken with men and women, until we were satisfied that all the pathways had been documented.

These provided the basis for my colleague Denise de Vries to map the data in the social dynamics programme that she had developed. The book *User-Centric Policy Design to Address Complex Needs* is a story of cross-disciplinary, cross-cultural research. It cannot be called transdisciplinary in the full sense of the term, because aspects of the research were outside my skill set, namely, computer programming and informatics, whilst aspects of my work on discourses and perceptions were not part of the skill set or values base of my informatics coresearchers who believed we could represent views and find pathways.

I considered that we were representing (in the sense used by Hesse-Biber 2010) perceptions and cocreating meanings through the process of doing the research engagement. The research was successful in terms of achieving the support of the Aboriginal community in the Southern Region and demonstrating an alternative form of participatory democracy and governance. It was also successful in so far as the research was extended to local government so that the specifically Aboriginal learnings could be applied more widely.

But the challenge has been to take the small pilot to extend decision-making on wellbeing pathways to a wider level due to lack of funding to scale up the trial as I am unable to do all the aspects of the research myself as I do not have the skills to reprogramme the software for Indonesia and need to pay to have the prototype adapted. Also the local prototype is just that a proof of concept that needs to be turned into an AP that could be used more widely. So this is one of the downsides of doing cross-disciplinary research if you cannot do all the elements yourself.

Nevertheless, it has been worthwhile to work across disciplines because it demonstrates the potential for doing research that matters but also all the pitfalls, such as the predicable hierarchy across the natural and social sciences with informatics professionals pricing themselves highly which is a fair reflection of the market and rendering research costly. Also the way the university undervalued the contributions is made by the informatics team—who were doing applications for systems dynamics and making a great practical social science contribution but not a valued for pure research in informatics.

It was based on the core issue that wellbeing needs to be addressed by working across disciplines and sectors. The co-designed software enables decision-making to enhance wellbeing by, with and for Aboriginal service users and providers. It was funded by the Australian Research Council, Neporendi Council and the (then) South Australian Department of Health as a way to enable Aboriginal stakeholders to teach non-Aboriginal stakeholders by drawing on their lived experiences. It drew on the Indigenous philosophy that thinking matters and that many, interrelated factors together shape wellbeing. It is not something that can be achieved through a health department, because it is about how we relate to others and the environment. The software (designed to map many pathways) was launched the day before the Rudd Apology to the Stolen Generation together with my coresearchers associate prof Douglas Morgan, senior lecturer Bevin Wilson, informatics designer Denise De Vries and several mentors including senior researcher Kim O'Donnell. Doug was at the time also chair of Neporendi, an advocacy organisation by, with and for Aboriginal people living in the Southern Region, and Bevin had been his senior mentor, because he drew upon his own experience as a chair of Neporendi.

We explained that our vision was to extend the research by scaling it up from working with non-government organisations and state departments to working with local government in South Australia. At this next stage of the research, supported by local government, I worked with some other researchers, but Bevin remained mentor. The scenarios presented as a basis for the local government research flowed from what I had learned from these mentors and the many informants in Alice Springs where I had previously worked and where my mentors stressed the importance of wellbeing as the outcome of many interrelated aspects that were explained in dreaming stories, such as Mpantwe (caterpillar dreaming), and hinted at through place names, such as 'Broken Promise Drive' for the road which cut through a sacred space near 'Cromwell Drive'. This is the official place name on the golf course estate. The irony of conquering nature along with many other narratives by leaders helped inform the design of scenarios which were then explored in the next project. The notion of spirituality and a sense of the sacred in everyday life were stressed, because the landscape itself was used for remembering. I learned first-hand that thinking matters. It shapes the land and

the land shapes us. So one project flows from the next and is informed by what I have learned from coresearchers. Now the work I am doing is around how to translate this profound understanding of the plasticity of the mind and nature into better forms of policy and governance as detailed in *Transformation from Wall Street to Wellbeing*, *Systemic Ethics* and *Planetary Passport*.

All the material below has been published and is cited here to give an overview of the programme of research to date (McIntyre-Mills 2008; McIntyre-Mills with De Vries 2011, 2014). The notion of using an organic metaphor for a computing programme helps to reconnect digital natives to the land. But it is unnecessary for those who have not lost the connection. Once many narratives on pathways to wellbeing had been documented maps, tracing routes were developed. As part of the research process, we then created maps of these routes for service users to check to see what factors were missing. We then asked people to check the factor or bubble maps and to add more items if they were missing (see McIntyre-Mills 2008) (Table 3.2).

From these factor or bubble maps, people were asked to identify whether their pathways could be traced and if not, they were asked to add the factors to the existing maps or to draw new ones. Several iterations were undertaken with men and women, until we were satisfied that all the pathways had been documented.

These provided the basis for my colleague Denise de Vries to map the data in the social dynamics programme that she had developed.

Table 3.2 Questions and factor map

1.	How does the bubble help other aspects of life?
2.	How does the bubble hinder other aspects of life?
3.	How important is the bubble? (use scale like one below)
	not at all a bit doesn't matter quite important very important
	If I solve this problem or have this asset first, does it make solving other problems easier?
4.	Do these things always happen together? Or one after another?
5.	How do I achieve it?
6.	How do I avoid it?
7.	Where can I get help for it?
8.	Who can I help and how, if they need this or have this problem?
9.	Is it sometimes good and sometimes bad—in what situations?
10.	Are there other names/terms for the same thing?
11.	What can stop me from (or make it really hard) getting/achieving it?
12.	Are there conditions I have to meet to achieve/get it (such as age, sex, children, income, employment, etc.)?
13.	Is this a smaller or larger part of another issue (like physical health is parent of diabetes)?
14.	If one thing happens, does another thing usually follow? Both good and bad
Task	
•	Please look at the drawing of the factors that influence wellbeing
•	Please write under the headings and draw your own pathways
•	Add issues/needs/solutions as you discuss and think about things
•	You can work as a group or alone—people can choose
•	Add as many more questions/descriptions as they/you want
•	Add balloons/bubbles as well, if you want to
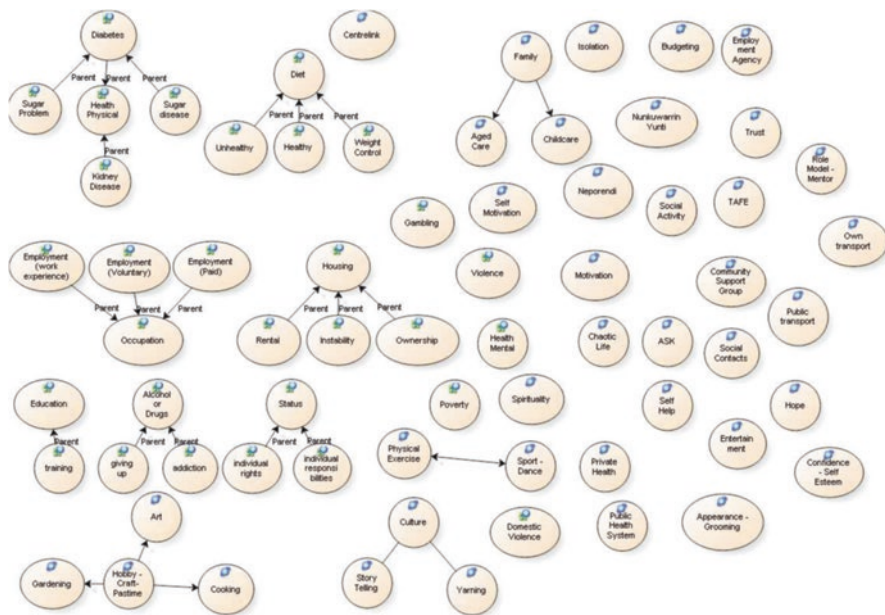
Source: Questions and factor map by De Vries in 'User Centric Policy Design to address complex needs', McIntyre-Mills (2008: 381)

The book *User-Centric Policy Design to Address Complex Needs* (McIntyre-Mills 2008) is a story of cross-disciplinary, cross-cultural research. It cannot be called transdisciplinary in the full sense of the term, because aspects of the research were outside my skill set, namely, computer programming and informatics, whilst aspects of my work on discourses and perceptions were not part of the skill set or values base of my informatics coresearchers who believed we could represent views and find pathways.

I considered that we were representing (in the sense used by Hesse-Biber 2010) perceptions and cocreating meanings through the process of doing the research engagement.

The research was successful in terms of achieving the support of the Aboriginal community in the Southern Region and demonstrating an alternative form of participatory democracy and governance. It was also successful in so far as the research was extended to local government so that the specifically Aboriginal learnings could be applied more widely. But the challenge has been to take the small pilot to extend decision-making on wellbeing pathways to a wider level due to lack of funding to scale up the trial as I am unable to do all the aspects of the research myself as I do not have the skills to reprogramme the software for Indonesia and need to pay to have the prototype adapted. Also the local prototype is just that a proof of concept that needs to be turned into an AP that could be used more widely. So this is one of the downsides of doing cross-disciplinary research if you cannot do all the elements yourself.

Planetary Passport and Transformation from Wall Street to Wellbeing

The research detailed in both these books (McIntyre-Mills 2017; McIntyre-Mills et al. 2014) seeks a better balance across social, cultural, political, economic and environmental interspecies concerns to ensure a sustainable future for current and future generations. The ecological citizen uses a 'planetary passport' to track the distribution and redistribution of resources in the interests of social and environmental justice. Engagement links high-level challenges with individual perspectives, facilitating nuanced investigation of the complex ethical challenge of closing the gap in life chances. The innovation for democracy and governance suggests a way to document the careful use of resources, to provide safe passage to those in need of safe habitat through the governance process to enhance a sense of shared ecological citizenship and responsibility for biodiversity. The fundamental approach is collaborative research, but it has implications for an alternative form of democracy and governance. The planetary passport (McIntyre-Mills 2017) is a means to maintain and regenerate wellbeing stocks. Production and consumption are indicative of GNP, but the focus is on maintaining human and natural resources. Boulding (1966) and Pauli (2010) distinguish between renewables and non-renewables. Stiglitz et al. (2010) stress that economic performance is less important than protecting the fabric of life on which we depend. But Pauli goes further than Stiglitz et al. to suggest that a paradigm shift is required to appreciate how economies can be seen as flows that abhor any form of waste. Thus wasted opportunities are important. Unemployment, social and environmental injustice are not externalities in this approach; they pose challenges for policymakers and academics who need to decide if they are going to be part of the problem or part of the solution. Praxis is not a spectator sport, and it needs to avoid being blind to the differing life chances that flow from being male, female, educated, uneducated, black, white, citizen, non-citizen and able to communicate or unable to communicate with powerful decision-makers.

'Flows' refer to the way in which human choices shape the landscape of our daily lives and need to be understood as part of the situated knowledges that are valued or discarded. What we choose to value is translated into being through our thinking and practice. The scope of the new architecture for democracy and governance is to make a plea for a planetary passport to enable us to rethink boundaries and relationships at multiple levels of democracy and governance through applying multiple forms of intervention to protect living systems. The capabilities approach on which this approach rests is non-anthropocentric, and it provides a basis for addressing better governance to prevent discrimination against the majority of this generation and the next. Alternative ways of framing human-nature relationships in legal, ethical and spiritual terms are illustrated by the Bolivian and Ecuadorean constitutions in line with their belief in Mother Earth or Pachamama. Despite the fact that the rhetoric is undermined by the political reality of 'business as usual', it provides a first step.

The next step is providing the necessary 'planetary passport' that aims to inspire loyalty to the planet as well as acting as a monitoring system to protect living systems through enabling people to address the UN Sustainable Development Goals at the local government level and recognising their contribution to protecting wellbeing stocks. This form of monitoring 'from below' could enhance representation, accountability and sustainability and be translated into points that enable the voices from below to be heard through local government and local communities using their mobile phones to have a say.

Design Based on 'What If' Scenarios to Consider Options for Extending Policy Boundaries

This approach has been extended through participatory democracy and governance with a focus on informed discussion around policy scenarios to address:

- Business as usual.
- Making small changes.
- Achieving development pathways that support social, economic and environmental wellbeing could be the focus of a new federalist approach.

The aim is to extend the boundaries to enable progress towards achieving social, economic and environmental wellbeing for current and future generations of living systems by working with different age cohorts. Educational systems for protecting people and the planet need to ensure that regeneration of living systems of which we are stewards. The ability to think about the environment of a problem, such as how to ensure that the system of education protects social, economic and environmental wellbeing stocks, requires addressing the life chances and opportunities across the baby boomers born after the war, Generation X, Generation Y and Generation Z. Considering the different experiences of education and work for the different generations is a good starting point. Baby boomers (aged 36–55 people born between 1946 and 1965) have experienced very different life chances in that they have had full-time employment which has enabled them to save and plan for the future. Generation X (aged 24–36, 1966–1976) is lack of full-time and permanent positions, whilst Generation Y (5–24 1977–1997) will face the challenge of learning new skills in order to remain relevant as designers, and they will face increased mechanisation and automation. Generation Z (under 6 born after 1997) will face a world where climate change could impact quality of life in ways that are currently unforeseen unless they can ensure that food, energy and water security are addressed in ways that protect habitat for all species. Global citizens need to consider the life chances and experiences across these cohorts and then could start the process of responding to diverse needs.

The social determinants of wellbeing impact on how people understand the nature of education and work.

Policy Changes to Support the Co-creation of Wellbeing Pathways

Engagement needs to develop the capability to protect wellbeing stocks through enhancing the ability of young people to design responses to areas of concern, such as food, energy and water security in cities supported by regional areas and an economy that supports people and the planet. Policy changes need to support the co-creation of wellbeing pathways. The theory of values for this next stage of the research will be informed by the work of Douglas (1978) and Midgley (2000). The values perceived to be sacred or profane will be explored through dialogue to underpin systemic intervention (Midgley 2000) with diverse stakeholders spanning the different age cohorts. The scenarios could be explored with service users and providers (learners, teachers, administrators, policy researchers) to explore and map the following using soft systems mapping (see McIntyre-Mills et al. 2014; McIntyre-Mills 2017):

- 'What we have' positive and negative assets explored by diverse stakeholders
- 'What we need' to progress education and governance explored by diverse stakeholders by reviewing best practice locally and elsewhere
- 'What we are prepared to add in terms of material and non-material considerations' to the education system
- 'What we are prepared to set aside or discard' because the material or conceptual aspects are perceived problematic
- Turning points for the better as perceived by diverse stakeholders
- Turning points for the worse as perceived by diverse stakeholders
- Barriers to transformation as perceived by diverse stakeholders
- Resources (material and nonmaterial) and services that could be offered by all stakeholders including parents and members of the community spanning the public, private and volunteer sectors who could support social, economic and environmental wellbeing by providing opportunities for vocational training

The design of inquiring systems approach (DISA) is a process that builds on West Churchman's work (1971, 1979, 1982) to enhance our capability to work with many different kinds of knowledge. It is a means to enable us to 'think about our thinking' and our practice and to enable us to 'join up the dots'. It applies dialogue to consider ideas with stakeholders through asking questions in order to unfold ideas and values and to sweep in the social, cultural, political, economic and environmental factors. West Churchman's student Werner Ulrich has design 12 questions which focus on what is the case and what ought to be the case, in order to guide better decisions. The stakeholders and the environment of the problem are considered carefully in the questioning process.

Ulrich and Reynolds (2010) distils the work of West Churchman's DISA into 12 is/ought questions that help to shape boundary judgements when working with stakeholders and different kinds of knowledge (logic, empiricism, idealism, dialectic and pragmatism), but it does not go far enough, questioning what is included or excluded and why is the basis for critical heuristics. Ulrich's[26] critical unfolding and

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[26] http://wulrich.com/csh.html

sweeping in social, cultural, political, economic and environmental considerations is the basis for a new approach to decision-making.[27] Churchman reminds us that the root for the word 'decision' is from the Latin 'to cut'. So before drawing the line on what needs to be excluded or included, we need to examine our own values and those of a range of stakeholders. We also need to consider a range of contextual considerations, social, cultural, political, economic and environmental dimensions, for example, when we think about the structures and processes of public administration. In plain language they provide a list of questions that help to address areas of concern that include many interrelated variables that are perceived differently by different stakeholders. These questions comprise the design process. Ulrich uses questioning to unfold the implications of design options:

- How do we know what to do?
- What is the best approach?
- Why is it the best approach?

Steps for Constructing an Alternative Process and Responsive Architecture

- From narratives of what is means to be part of a living system, in order to experience wellbeing, we can develop a sense of the many interrelated variables that shape our life chances and map them using soft systems mapping.
- From the soft systems maps and axial themes in narratives, we can find root metaphors that underpin our sense of interconnection, and we can gain a better understanding of the meaning of the IPCC formula: E (Emissions) = Population X Consumption per person X Energy Efficiency X Energy Emissions.

The need to explore the notion of footprint as a series of interconnections that flow as a result of the consequences of our decisions is elaborated in *Planetary Passport* (2017) and *Transformation from Wall Street to Wellbeing* (2014).

Just as the daughters of Guam (Frain 2017) understand that they are responsible to their ancestors for present-day decisions and for the future, so planning for the future based on decolonising education needs to plan for future generation through the kinds of employment opportunities that are created and the kinds of education curricula that are developed. This is discussed in more depth in a chapter on Vocational Pathways and Public Education in volume 2: *Democracy and Governance for Resourcing the Commons*.

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[27] Ulrich poses 12 boundary questions. He stresses that they should be asked in terms of 'what is the case now?' (describing the current situation by using the 12 questions) and 'what ought to be the case?' (making judgements informed by the 12 questions in order to make ethical decisions).

At the outset we establish demographic variables and then establish with which scenario they identify before exploring:

- What they perceive they need to **add to** their lives to make a difference to mitigating or adapting to climate change.
- What they perceive they need to **discard** from their lives to make a difference to mitigating or adapting to climate change.
- What they perceive are the **turning points** for the better or worse, what the barriers are and what services make a difference.

Telling a story and thinking about what we have and what we need and what we are prepared to add or discard from life is part of stepping into another conceptual space.[28] The evaluation of the level of importance of multiple and a simultaneously important issue is important by reflecting on one's life in terms of different scenarios and the consequences of these choices, for example:

- *I have* the following things in my life—understanding of human rights, respect for biodiversity, fear for the future/hope for the future, a confidence or lack of confidence, loss of home due to natural or other disaster, no family/community support, responsibility to care for others and very high levels of stress (Fig. 3.16)

- *I need* in my life—a home, a sense of safety, a place near public transport and hope for the future

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- *I will add* to my life—more community supports from a range of services and/or more community engagement to lobby for resources, more connection to nature

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- *I will discard* from my life—a sense of hopelessness, a sense of entitlement, excessive consumption

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- Self-reflection on *the turning points* for the better or worse—hope that consumption can be replaced with greater sense of attachment to others and the environment

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- *Consideration of the barriers* that currently exist and consideration of what could be done to transform society and our relationship to the environment

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Systemic Intervention and Engagement Process

The metaphor for planetary passport came from weaving; the work of the women at Neporendi was used as a metaphor for weaving together strands of experience that extends so-called triple bottom-line accounting and accountability to include a sense of ongoing, everyday commitment to being the change through our everyday choices. The Aarhus convention and Local Agenda 21 provide the policy background for the approach (Fig. 3.17).

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[28] This needs to be a therapeutic process and cannot be rushed. The time taken is part of the emotional connection with a different *way of being*. It involves thinking about being a different person. It is the same kind of process as taking an oath or making a vow (Collins 2004), or entering into a contract to undertake certain actions.

	A	B	C	D
1	CreateDate	Domain	ConceptDesc	Total
2				
3	2012-10-16	Small Changes for the Long haul	greed and wasteful habits	1
4	2012-08-01	Business as Usual	7 rain tanks	5
5	2012-09-24	Small Changes for the Long haul	A home	7
6	2012-04-17	Small Changes for the Long haul	a house	7
7	2012-09-05	Business as Usual	a job	21
8	2012-10-03	Sustainable Future	A job that uses my education and challenges me	1
9	2012-07-20	Small Changes for the Long haul	A meaningful job on environment	1
10	2012-04-11	Small Changes for the Long haul	ability to adapt and change	1
11	2012-10-25	Small Changes for the Long haul	able to spend on social activities	1
12	2012-07-30	Small Changes for the Long haul	access to farmer's markets	1
13	2012-09-21	Small Changes for the Long haul	Air	1
14	2012-04-16	Small Changes for the Long haul	air conditioned	3
15	2012-07-30	Small Changes for the Long haul	air conditioning to heat home	2
16	2012-08-05	Small Changes for the Long haul	All family members have bikes	2
17	2012-09-24	Small Changes for the Long haul	altruism or protecting the planet for future generations	1
18	2012-09-05	Business as Usual	Beautiful surroundings provided by Bush	5
19	2012-08-10	Small Changes for the Long haul	Big business as usual	1
20	2012-10-03	Small Changes for the Long haul	Bike riding	1
21	2012-07-30	Small Changes for the Long haul	bike riding	2
22	2012-10-08	Sustainable Future	Blinds on the windows	1
23	2012-08-01	Business as Usual	build more safe walking paths at the local level	3
24	2012-04-13	Small Changes for the Long haul	Building temperature control	1
25	2012-07-20	Small Changes for the Long haul	care for elderly parent	1
26	2012-10-08	Small Changes for the Long haul	Chickens (free eggs)	1
27	2012-07-30	Small Changes for the Long haul	close enough to work that I can walk or bicycle	1
28	2012-10-25	Small Changes for the Long haul	comfortable house	1
29	2012-09-24	Small Changes for the Long haul	Community	2
30	2012-09-24	Small Changes for the Long haul	community activities	3
31	2012-10-08	Small Changes for the Long haul	Community parks, paths and recreation areas	1
32	2012-09-24	Small Changes for the Long haul	community services for elderly	1
33	2012-09-24	Small Changes for the Long haul	community walking paths	1
34	2012-04-16	Small Changes for the Long haul	compost bin	8
35	2012-08-10	Small Changes for the Long haul	Cost of adaptation	1
36	2012-10-25	Small Changes for the Long haul	cost of solar panels	2

Fig. 3.16 Screen shots of the prototype. Source: De Vries in McIntyre-Mills (2008), cited in McIntyre-Mills (2018), chapter 3, https://archive.org/download/pathway_DEMO_1pathways to wellbeing https://ia801606.us.archive.org/20/items/pathway_DEMO_1/pathway_DEMO_1.mp4
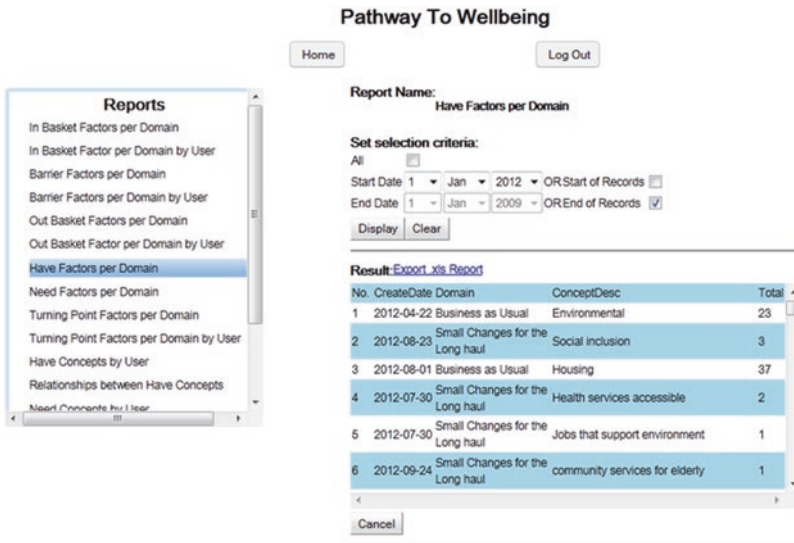
Fig. 3.16 (continued)

Fig. 3.17 Weaving together river grasses, the metaphor for the software design Source: McIntyre-Mills (2008: 115)

I then did research in South Australia with Neporendi leading to an Australian Research Council Grant to address complex health housing and social inclusion and scaling up the research with other small grants including a local government grant.
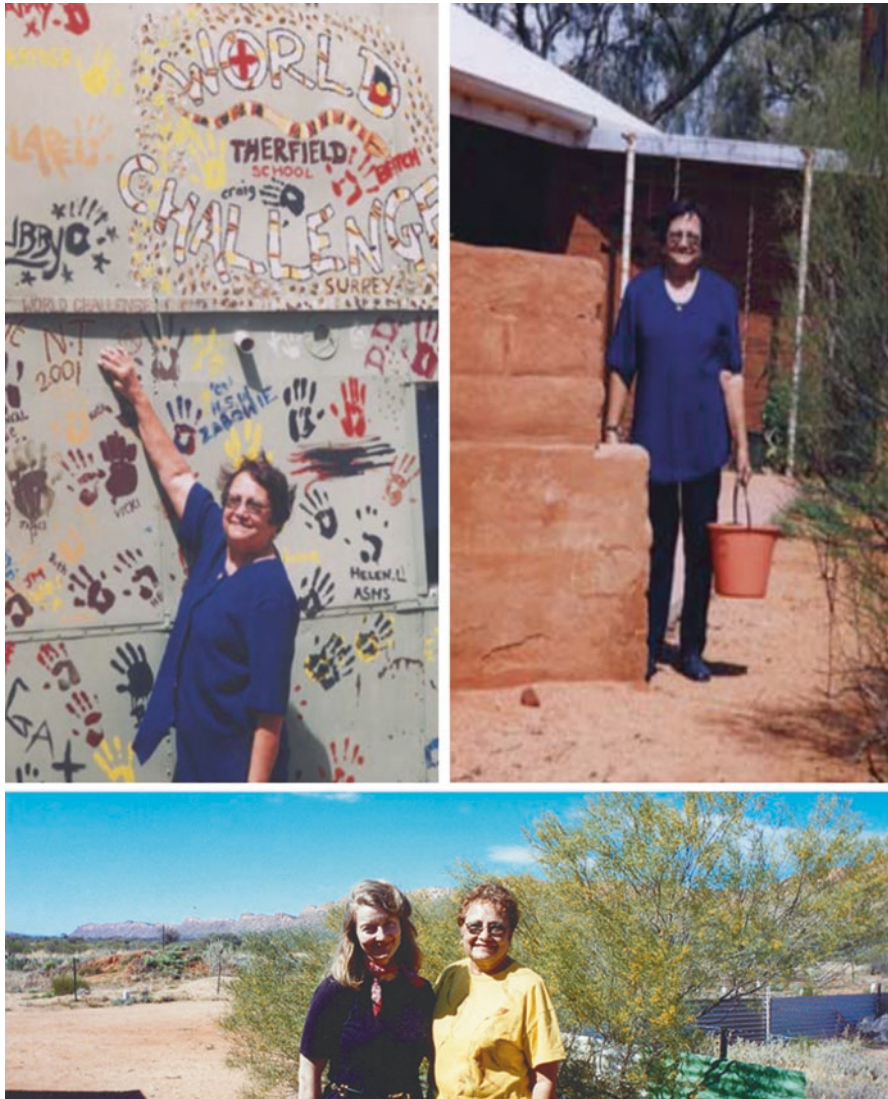
Fig. 3.18 Arrernte leader and mentor for the research. Photograph by Michael Rook of author and Olive Veverbrants outside her home near Alice Springs

Olive Veverbrants also taught this philosophy by 'walking the talk' through the way she lived her life in Alice Springs. She lived in a mud-brick sustainable home in which she did as much recycling as possible and used water carefully so that grey water was reused to water her bean plants which also provided much needed shade. She provided opportunities for vulnerable young people at risk through home stays on her property outside Alice (Fig. 3.18).

Capitalist, urban cultures forget people and country. When I experienced and listened to the story of caterpillar dreaming, butterfly being, it resonated and I began to understand the importance of regeneration and protection of people and habitat. The resonance of regeneration and continuity is one that is lost when we use the resources of this generation and leave nothing for the next generation of life. The next metaphor that helped shape 'planetary passport' came from weaving. The work of the women at Neporendi was used as a metaphor for weaving together strands of experience that extends the so-called triple bottom-line accounting (John Elkington 1997) and accountability to include a sense of ongoing, everyday commitment to being the change through our everyday choices.

How Can Engagement Effectively Respond to Diverse Needs?

Systemic intervention based on methodological pluralism (multiple mixed methods) to address an area of concern starts with an exploration of the values of the stakeholders through understanding boundaries of inclusion and exclusion and the basis for decisions.

All policy and governance decisions are based on designing responses. Who and what are included are vital ethical decisions that get to the heart of social and environmental justice considerations.

This section explores the relationship between functioning and capabilities by enhancing space for the negotiation of the recognition of both diverse standpoints on social, economic and environmental issues as well as shared meanings. The two-fold aim is to:

- Protect diversity and areas of common ground in the interests of current and future generations.
- Explore ways to implement social and environmental impact bonds to reward protecting the so-called wellbeing stocks for current and future generations or better still achieve full-time universal employment. If we accept that unemployment is neither necessary nor just, then the approach suggested by Rutgers Bregman (2017) on universal employment becomes a sensible approach (with a pragmatic focus) to reward those who support their communities in terms of regenerating (not merely sustaining) the social, economic and environmental fabric by finding and sharing sources of abundance (see Chap. 14, volume 1 and Chap. 5, volume 2).

The axiom is that by tapping into sources of abundance, we create more opportunities and more wellbeing. It is the very antithesis of 'us/them' or 'zero-sum' thinking and practice based on the notion of competition between winners and losers.

Achieving development pathways that support social, economic and environmental wellbeing could be the focus of a new federalist approach. The aim is to extend the boundaries to enable progress towards achieving social, economic and

environmental wellbeing for current and future generations of living systems by working with different age cohorts. Educational systems for protecting people and the planet need to ensure that regeneration of living systems of which we are stewards. The ability to think about the environment of a problem, such as how to ensure that the system of education protects social, economic and environmental wellbeing stocks, requires addressing the life chances and opportunities across the baby boomers born after the war, Generation X, Generation Y and Generation Z.

Considering the different experiences of education and work for the different generations is a good starting point. Baby boomers, Generation X, Generation Y and Generation Z face very different life chances depending on where they are born and who their parents are. As stressed in my previous chapter, the youngest generation will face a world where climate change could impact quality of life in ways that are currently unforeseen unless they can ensure that food, energy and water security are addressed in ways that protect habitat for all species.

If workshops are facilitated to consider the life, chances and experiences across these cohorts then could start the process of responding to diverse needs. The social determinants of wellbeing impact on how people understand the nature of education and work.

In order to find the areas of overlap and the areas of separation that illustrate what stakeholders consider to be acceptable and unacceptable, the following steps could be explored through workshops with diverse stakeholders spanning the public, private and volunteer sectors and including administrators, members of the community and policy researchers.

Facilitation with stakeholders is the core approach used to match responses to perceived needs in context. Midgley (2000) draws on the work of Mary Douglas (1978), a social anthropologist who conceptualized the notion of sacred (acceptable or in line with accepted norms) and profane (unacceptable or beyond the pale) and theorised boundary judgements as cultural concepts. Conflict can be resolved by engaging in dialogue with the stakeholders and considering the consequences for everyone. For example, we can consider:

- The Adani mine in terms of the values of diverse stakeholders conflict as to whether the rights of all Indigenous people have been taken into consideration or whether deals have been made with some to enable the mining of coal which would enable employment creation in the opinion of government and some Indigenous stakeholders, whilst other Indigenous stakeholders and the Greens dispute this argument and suggest that it would hasten the end of the Queensland coral reef as a result of increased carbon emissions resulting from Adani and the other coal mines that are likely to open up along the same reef of coal
- The needs of diverse service users and providers at risk of domestic violence versus those who are perpetrators of violence. The norms linked with Nussbaum's capabilities approach could be applied to exploring the life chances across gender, age, culture and a range of other socio-economic indicators of wellbeing
- The needs of local government residents at risk of unemployment/water shortages, for example, need to be addressed in terms of a range of social, eco-

nomic and environmental indicators to establish the extent to which performance and impact to address mitigation and adaptation to climate change are achieved.

Previous publications have stressed the growing gaps between rich and poor and the growing gaps in quality of life associated with urbanisation, loss of land and unemployment that impact men and women and children differently depending on their age, their level of education and where they were born. Those without the right to vote are particularly vulnerable (see McIntyre-Mills 2017; McIntyre-Mills et al. 2017). In this paper I do not want to rehearse these contextual issues, I want to look specifically at processes to enable engagement in transformational research to address the big issues of the day, namely, poverty and climate change.

Thus the research addresses perceptions on what it means to live well in ways that protect people and the planet, what constitutes representation of diverse voices (Hesse-Biber 2010) and the regeneration of social, environmental and economic fabric (McIntyre-Mills 2017).

This research is vital for balancing individual and collective needs in order to enhance democracy and governance at a time when people consider that their needs are not being met in increasingly diverse nation states.

Policy Paradox of Adani Mine, Jobs and Climate Change as Starting Points for Pragmatic Engagement

Implications for *Practical and Principled Multiple Mixed Methods Research*

How do people and the environment change through design and technology? Are we designers of our future or shaped by the environment? The answer is that we shape our environment and it shapes us. The syllogism put forward by Greenfield is important: Environment changes people but now people change the environment.

The point is that people are changing as a result of designs that encourage them to ignore face-to-face engagement and they ignore the environment. We can go two ways, namely, to continue to devalue people planet or to reframe our values to protect and value the fabric of life. We need to use technology to protect the environment. We could expand our boundaries through extending our communication potential or we constrict them by becoming more containerist, bigoted and inward looking; the latter is more likely at the moment. The purpose of my work is to sound a warning and make a plea for using technology with care and shaping its use. What can the current TV series 'Cleverman' tell us about Australia? The ABC programme 'Compass' hosted by Geraldine Doogue[29] explored the different views on men's stories about the clever man and the right of only men to talk about it. The role of

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[29] https://www.abc.net.au/religion/watch/compass/the-moral-compass-cleverman-special/10142274

the so-called hairies was discussed as stories owned by various Aboriginal groups about isolated groups who had been ousted and survived on their strength.

No one talked about the obvious aspects of Aboriginal/non-Aboriginal power dynamics or the multiple betrayals. The bigotry and racism within and across interest groups are a subtext of the series. Thus it provides a cynical commentary on local and international politics based on divisive 'us/them' policies and how each politician is out to win votes in the short term without considering the long-term implications of their decisions.

Paradoxes are important because they provide a way into understanding where the major policy challenges exist. They also demonstrate the way in which issues are tangled. Like Mertens (2016), I assume that the purpose of research ought to bring about change. This section will explore the policy paradox that although many Australians are aware of the implications of coal emissions and mining on the coral reef, policy connections are not being translated into governance to manage the coal industry.

Added to this the Green movement is being taken to task for their so-called Terra nullius position by Marcia Langton for assuming that they do not have rights over their land and a right to make decisions about their economic future. So the purpose of this paper is an attempt to show firstly the importance of identifying paradoxes and secondly the importance of demonstrating a way to work through paradoxes through ongoing participatory governance and democracy. The point is made that as the nation state becomes increasingly diverse, it becomes increasingly difficult to represent diverse views through traditional forms of voting.

This is why the research I have been doing has something to offer and fills an unrecognised gap in addressing:

- Alternative architectures of democracy to work with diverse values and perceptions
- Find points of overlap

It explores the way in which policy paradoxes provide a starting point for exploring wicked problems that are perceived differently by different stakeholders who have strong value positions on what ought to be done to address an area of concern. The case is made for cross-cultural and interdisciplinary research and the challenges associated with achieving practical transformations through two ambitious pilots' case studies. Finally the paper illustrates current policy issues in Australia that would benefit from this approach.

Multiple mixed methods are applied within and across my own projects and projects together with students. I recall reading a paper or chapter by Hesse-Biber who describes a backpack of methods for the journey of research. This paper reflects on the way Romm (2018) discusses multiple mixed methods and how in my own life they are applied in pragmatic ways to addressing complex policy concerns where people see an area of concern very differently.

Reflection on Current Policy Issues

What does Langton mean by saying in the Boyer Lectures, *The Quiet Revolution: Indigenous People and the Resources Boom*,[30] that the Greens are treating Aboriginal people as Terra nullius? Langton stresses:

> They are not wilderness areas. They are Aboriginal homelands, shaped over millennia by Aboriginal people. (2012)

The point Marcia Langton and Noel Pearson have made is that Indigenous Australians have not added to emissions and have not cleared their lands. They have also lost out on the right to benefit from their own land. They want to control their own lands. Instead the so-called empty continent was perceived to be ripe for the plucking by the colonisers.

'Indigenous people' and 'Indigeneity' are concepts that can empower or be used to disempower. Indigenous groups exist in different circumstances, some have political rights in the form of treaties or constitutional recognition, some have land rights (often hard won through years of litigation) and some have limited cultural rights and recognised limited political representation. Some have none of the above, some are not minority groups, but they have survived a history of colonisation and prefer to see themselves as Indigenous. This is why the United Nations GA 2007, Resolution 61/295 of 13 September, enables self-identification.

In South Australia, leadership based on 'speaking as country' is a growing movement in recognition of Indigenous ways of knowing and being. It has provided clear leadership on sustaining water levels for the Murray River and protecting it from rising levels of salinity. Speaking for country has not been without its difficulties in South Australia. One of the most notorious examples is the so-called Hindmarsh Bridge affair. South Australia has a history of colonisation, development and dispossession chequered by belated acknowledgement of Australian citizenship, an Australian constitution that continues to discriminate against First Nations.

One of the low points is the Hindmarsh Bridge affair in which the sacred knowledge of Aboriginal women elders was disregarded, because it was misunderstood and contested by rival narratives within the Aboriginal community who were not aware of spiritual dreaming stories (Mead 1995 cited in McIntyre-Mills 1996: 75). But by September 2017, Kim O Donnell was able to share that steps are being made to negotiate a treaty at the South Australian level. Some states and some local government organisations are showing more progressive approaches to the rights of First Nations. For example, the Yarra City Council in Victoria and Marion City Council (close to Flinders University) have suggested that they will hold a ceremony to honour the first Australians on Australia Day. This has been opposed by government because it is the day on which citizenship ceremonies are held.

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[30] http://www.abc.net.au/radionational/programs/boyerlectures/series/2012-boyer-lectures/4305696

In Queensland the contested positions on the Adani mine is problematic, because opening the mine to provide power for India's growing cities could impact on the rising levels of emissions in Australia. The Adani mine provides a current example of the local, national and global implications of the importance of Indigenous decision-making and the relevance for public policy.

The link has been made between coal mining and the loss of the coral reefs in Australia. Ironically the stewardship role of Wangan *and Jagalingou* is being challenged by Marcia Langton who says that the 'cashed up' Greens and those who can afford to support Green policies are making a stand on behalf of Aboriginal Australians who need access to jobs and capital earned from the mining industry (Murphey 2017 cites Langon).[31]

An Aboriginal silk *Tony McAvoy* stresses that Marcia Langton is ill informed[32] and that the Adani mine is not supported by the majority of local Aboriginal people[33] and that in fact the mine was supported by groups who had been bribed by the mine to support their development goals:

> One of Australia's leading native title lawyers has spoken publicly for the first time as a traditional owner fighting to stop the Adani mine, a campaign he said was driven by "proud and independent people" who were among the best-informed Indigenous litigants in the country. Tony McAvoy SC, who became Australia's first Indigenous silk in 2015, said the Wangan and Jagalingou people were keenly aware of how their priorities differed from environmentalist allies in a battle to preserve their Queensland country from one of the world's largest proposed coalmines. McAvoy dismissed claims by the prominent Indigenous academic Marcia Langton that Indigenous people had become "collateral damage" as the "environmental industry" hijacked the Adani issue. He said the rhetoric of Langton and Warren Mundine, who likened anti-Adani campaigners to colonial oppressors running roughshod over Indigenous self-determination, "serves a purpose for them but is just so inaccurate…The barrister said to suggest that "the greens are puppet masters pulling the strings and we're somehow puppets" was wildly off the mark and disrespectful to the many families opposing the mine, including his.

Langton disputes this, according to Slattery who reports her speech to the Minerals Council of Australia in Melbourne (2017)[34]:

> she blamed the mine's opponents for delaying Native Title legislation that would provide certainty to hundreds of traditional owner groups across the country.

The argument that Adani paid and bribed traditional owners to support the mine has recently been exposed in an article in *The Guardian*.[35]

[31] Murphey, K. (2017) https://www.theguardian.com/australia-news/2017/jun/07/indigenous-people-victims-of-green-fight-against-adani-mine-says-marcia-langton

[32] Robertson, J. (2017) https://www.theguardian.com/environment/2017/jun/09/leading-indigenous-lawyer-hits-back-at-marcia-langton-over-adani

[33] https://www.theguardian.com/environment/2017/jun/15/adani-mine-loses-majority-support-of-traditional-owner-representatives

[34] Slattery, C. (2017) http://www.abc.net.au/news/2017-06-08/most-indigenous-people-support-adani-coal-mine:/8599696

[35] https://www.theguardian.com/australia-news/2016/apr/16/revealed-traditional-owners-accepted-payments-to-attend-adani-meetings

Thus the clash between a prominent academic and a prominent Aboriginal barrister highlights the diversity of opinions about the relationship between stewardship of the land versus capitalist development.

It highlights the importance of avoiding oversimplification and the need to study the power dynamics of capital and the impact business as usual will have in the long term.[36]

The argument for development versus stewardship is a false dichotomy. There needs to be a middle way where development is by and with people for the planet.

Coal is clearly not one of the options that can help sustainable development goals,[37] and it will impact on the heritage of all Australians[38] as stressed by Anna Krien (2017) in 'The long goodbye-coal, coral and climate change deadlock'.

Employment opportunities have been denied Aboriginal Australians, and Langton is right to stress the importance of putting employment and ownership rights first. But mining coal will be to the long-term disadvantage of everyone including those who will benefit in the short term from coal power. But Krien (2017: 4) stresses:

> In the entire system—some 2300 kilo-metres of reefs, atolls and islands stretching from the Torres Strait in the north to Fraser Island in the south—the taskforce found that only 7 per cent of the coral had been completely spared bleaching…
>
>   The following week, in federal parliament, the Tasmanian Greens senator
>   Peter Whish-Wilson read out Hughes' tweet and members of the
>   Coalition laughed and gave sarcastic sighs of sympathy…

Thus the Greens are between a rock and a hard place without the support of those who can see 'the bigger picture'.

Krien (2017: 5) explains that:

> Global warming is pushing up temperatures in the ocean at a rate too fast for most corals, and all that rely on them, to adapt. An unseen side effect of this temperature rise is a change in chemistry. Carbon and methane emissions are making the sea acidic.

Krien (2017: 13) explains that the unemployed in Queensland do not stand a chance if they are not university qualified and able to make a contribution to an increasingly automated workforce. The number of manual workers and drivers will dramatically decrease as automation takes over unskilled jobs:

> Today a BHP internet advertisement calls for the next generation to "Join our tech revolution." In it young adults of varying skin tones, some sporting a piercing or tattoo, appear happy and inspired as they perch on luminous white cubes in a space that looks very much like the Nicholas Building, a well-known hive of art studios in Melbourne. This is, as BHP says, the new generation of miners. Think university-educated "aspirationals." Think mining engineers, geologists, geophysicists. Think a bachelor's degree and at least five years' experience. Those kids in regional Queensland holding placards begging for jobs don't stand a chance. But then everyone knew that, didn't they?

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[36] https://www.theguardian.com/commentisfree/2015/apr/03/its-not-just-indigenous-australians-v-adani-over-a-coal-mine-we-should-all-join-this-fight

[37] https://www.theguardian.com/sustainable-business/2017/jul/21/dirty-coal-to-dirty-politics-everything-is-connected-through-a-malformed-political-economy

[38] https://www.blackincbooks.com.au/books/long-goodbye

So she explains that the notion that mining will provide an answer to current and future generations is debatable and a small group of traditional owners and a grazier will need 'to hold the line' to prevent the start of mining a whole seam of coal that:

> would, when burnt, blow up to one-tenth of the world's total carbon budget—the amount scientists say we have left if we want to stop at 2°C of warming. (Kriel 2017: 15)

Krien (2017: 22) lists the usual suspects by citing Queensland senator George Christensen who wrote for the Australian as follows:

> Queenslanders suffering the costs of Cyclone Debbie … must lay the blame at the feet of Australians opposing Adani's coalmine. He listed the vast network of wealth and influence behind the anti-Adani campaign—millionaire bank CEOs, lobbying group GetUp!, anti-coal organisations with links to the Clintons, the former Labor minister Peter Garrett, the Wangan and Jagalingou Traditional Owners Council, those in their comfortable enclaves down south—in other words, the usual culture-baiting tirade most Australians have come to expect.

The assumption is that Indigenous public policy issues can teach us core lessons about what is wrong with what is known as mainstream policy today. The focus of this essay is on non-anthropocentrism and what the global Indigenous policy movement has to offer in terms of regenerating country and reconnecting us with nature.

Susan Greenfield has developed her career on the narrative that we have changed the landscape and the landscape is changing the brain. Her research stresses that human beings have become increasingly digital in our focus at the cost of our ability to communicate in real time and at the cost of our ability to read human emotions. We have also disconnected from local communities and the natural world at our personal cost.

The narrative detailed in this contribution is the value of remembering Indigenous knowledge supported by the axiom: We can be free and diverse to the extent that our freedom and diversity does not undermine the rights of other sentient beings and the environment. The recent attempts through the recognised movement in Australia have raised the issue of the need for Aboriginal and Torres Strait islanders to have a voice. This needs to be more than symbolic. It is not about race; it is about recognition of First nationhood. The suggestion has been made that a federalist-type solution be found where all Indigenous communities are given a voice.

The Australian Broadcasting Corporation programme 'The Drum' (18th/07/2017)[39] featured Shireen Morris from the Cape York Institute. She stressed that the federalist solution is in line with the spirit of the Australian constitution. Indigenous voice to parliament provides external advocacy. Indigenous MPs are supposed to represent everyone. But they are just a 3% voice within parliament.[40] Shireen stresses that it is not enough to have a legislative body. Advisors are picked by Malcom Turnbull. People feel disempowered when decisions are made for them.

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[39] http://iview.abc.net.au/programs/drum/NU1705H122S00

[40] It makes laws for the 3% and people want to have a say. The challenge is that conservative groups such as 'One Nation' could lead to problems if they stress that the constitution already meets the needs of everyone.

A federalist solution could avoid any divisive conversation and could be easily accommodated without any divisive discussions.

Perkins (2017)[41] cites conservative Julian Leeser who stresses this sort of proposal is in line with the sort of proposal that Griffith and Barton could have drafted—because it gives the constituencies a voice—even the minorities like Tasmania.

The panel discussion hosted by 'The Drum' on the current challenges stresses that Malcolm Turnbull says he will make decision with not for Aboriginal people so he needs to 'step up' and that Turnbull fears the referendum. Senior men and women are currently left out of the decisions. NT intervention was not effective and without adequate consultation. Key decisions have been made without consulting—there is an advisory body for Turnbull, but this is not enough. It was described as:

> only a tick box effort—we show them the pre-determined outcome—say what you think but only people who have been selected.

To sum up, the panellists stressed the need to move to a more viable solution which avoids referendum and road blocks.

The 'Uluru statement from the heart' makes the point that Aboriginal voices are as yet unheard. *It is cited in full below*:

> We, gathered at the 2017 National Constitutional Convention, coming from all points of the southern sky, make this statement from the heart: Our Aboriginal and Torres Strait Islander tribes were the first sovereign Nations of the Australian continent and its adjacent islands, and possessed it under our own laws and customs. This our ancestors did, according to the reckoning of our culture, from the Creation, according to the common law from 'time immemorial', and according to science more than 60,000 years ago. This sovereignty is a spiritual notion: the ancestral tie between the land, or 'mother nature', and the Aboriginal and Torres Strait Islander peoples who were born therefrom, remain attached thereto, and must one-day return thither to be united with our ancestors. This link is the basis of the ownership of the soil, or better, of sovereignty. It has never been ceded or extinguished, and co-exists with the sovereignty of the Crown.

How could it be otherwise? That peoples possessed a land for 60 millennia and this sacred link disappears from world history in merely the last 200 years? With substantive constitutional change and structural reform, we believe this ancient sovereignty can shine through as a fuller expression of Australia's nationhood.

> Proportionally, we are the most incarcerated people on the planet. We are not an innately criminal people. Our children are aliened from their families at unprecedented rates. This cannot be because we have no love for them. And our youth languish in detention in obscene numbers. They should be our hope for the future. These dimensions of our crisis tell plainly the structural nature of our problem. This is the torment of our powerlessness.

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[41] Perkins, R. 2017 Indigenous declaration is an honest claim from the heart of our nation http://www.theaustralian.com.au/opinion/indigenous-declaration-is-an-honest-claim-from-the-heart-of-our-nation/news-story/e5adc80c44d2edc30c5b88540caa35bc: The 'Uphold & Recognise's approach' is gaining support amongst non-indigenous Australians, particularly conservatives. Its champions are former Menzies Centre director, former Samuel Griffiths Society convener and staunch defender of the Australian Constitution, Julian Leeser MP, together with Professor Greg Craven at the Australian Catholic University, another constitutional conservative.

We seek constitutional reforms to empower our people and take a rightful place in our own country. When we have power over our destiny our children will flourish. They will walk in two worlds and their culture will be a gift to their country. We call for the establishment of a First Nations Voice enshrined in the Constitution. Makarrata is the culmination of our agenda: the coming together after a struggle. It captures our aspirations for a fair and truthful relationship with the people of Australia and a better future for our children based on justice and self-determination. We seek a Makarrata Commission to supervise a process of agreement-making between governments and First Nations and truth-telling about our history. In 1967 we were counted, in 2017 we seek to be heard. We leave base camp and start our trek across this vast country. We invite you to walk with us in a movement of the Australian people for a better future".[42]

So the point made in the Uluru statement above is that participatory democracy and governance needs to ensure a voice for all community members across the nation, fair distribution of assets whilst protecting people and the environment.

Vignette[43]

People who are displaced from their usual homes experience loss and confusion:

Last month (May 2017), Peter Turner on his walking frame looks at the puddle of water splashed from a water jug by a busy waiter in an Indian restaurant in Adelaide, South Australia. He has travelled from Alice Springs to Adelaide for cancer treatments.

He exclaims, 'be careful!'

I think he is concerned about slipping on the wet surface that glows on the red jarrah floor, but he perceives it as kangaroo blood.

We reassure him as he leans on his walking frame. He explains to bewildered urban lunchers that he is from the bush. He wears a bush hat decorated with eagle feathers and a long white beard.

His hat helps him to affirm his identity, which is 'Eagle dreaming'. He explains the meaning of the feathers in his hat to me and to the waitress. I listen to his story which he tells each time we meet.

The Northern Territory is his home state, and by telling his story, he strives to make connections with the people he meets in the city environment and to recall the memory of his place and his dreaming.

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[42] https://www.themonthly.com.au/today/sean-kelly/2017/29/2017/1496039300/uluru-statement-heart

https://assets.documentcloud.org/documents/3755370/ULURU-STATEMENT-FROM-the-HEART.pdf ULURU STATEMENT FROM the HEART (PDF)

[43] Poetry and weaving go hand in hand. The melancholy of life in the Anthropocene triggers the need to weave together new ways of seeing if we hope to resurrect our democracy and opportunities for those left behind. Design for sustainable living is feasible, if we can imagine them we can make them happen.

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Myanmar seeking ethnic cleansing, says UN official as Rohingya flee persecution. https://www.theguardian.com/world/2016/nov/24/rohingya-flee-to-bangladesh-to-escape-myanmar-military-strikes

Part I
Conflict, Displacement and Loss: Past and Present

Janet McIntyre discusses current cascading challenges and looks at colonisation and the role of the Dutch East India Company in shaping the management of the commons in the Cape and Indonesia. The paper aims to enhance our understanding on governance of the commons and ways to address the UN Sustainable Development Goals pertaining to poverty, food and water security, climate change and co-operation across the public, private and NGO sectors. We need to work more creatively across the social and natural sciences to protect the commons. Historians, sociologists and social anthropologists are well placed to make policy suggestions by looking to the past to inform the present social, economic and environmental challenges that are now making the current way of life unsustainable.

Christine Winter uses multiple qualitative methods to explore historical documents on the impact of war in the Pacific on New Guinea villagers and their survival during the Pacific War. She uses history to provide a grounded story of conflict, survival, food, barter and education.

Sharmin Sultana and Mohammad use secondary qualitative and quantitative data to develop a short vignette to explore the human rights issues of the Rohingya refugees, and two anonymous students explore the challenges of current conflict in West Papua by using multiple forms of mixed data. The need to avoid another East-Timor atrocity is discussed in the context of the fight for indigenous sovereignty and self-determination in West Papua. Finally a paper explores transnational corporations and human rights abuses and the complicity of Australia.

Documentary analysis of records provides a context for examining current conflicts. The section makes a plea to learn from history and 'not to repeat the mistakes'. Some of the authors are anonymous to enable them to continue to work on the topics as they are living or working within the context that the issues are unfolding.

Jones (2018) stresses that one of the challenges will be to protect those who are displaced and to ensure that immigration departments work with NGOs[1] and that all human beings are treated in a Kantian sense as 'ends in themselves', rather than as 'a means to an end', a labour force that is only allowed entry when it suits the economy. This applies on land and at sea. Tondo and McVeigh (2018)[2] estimate that more than two thousand lives have been lost trying to cross into Europe:

> "According to figures from the International Organization for Migration (IOM), 2,383 migrants died in shipwrecks in 2017, compared with 100,308 arrivals in Italy. In 2018, with NGO boats under pressure from Maltese and Italian authorities, the number of victims has already reached 1,130, compared with just 20,319 who have landed in the country."

Border protection is highlighted as a major concern by the Australian Government's Foreign Policy White Paper (2017) subtitled: 'Opportunity, Security, Strength'. The record of the Malu Sara Saga (see McIntyre-Mills 2014, 2017, 2018) underlines that when the policy is to protect borders at all costs, human lives can be placed at risk. The Mau Sara patrol boat was built without appropriate floatation tanks and the Torres Strait Islander patrol officers were given inadequate training. They were sent out on rough seas and they were not rescued when they sent out a distress signal. Eventually a volunteer search and rescue officer spotted one last survivor. But by the time they turned back to help it was too late.[3]

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[1] Jones, S. 2018 https://www.theguardian.com/world/2018/jun/17/aquarius-refusal-was-betrayal-of-european-values-says-charity-boss

[2] Tondo, L. in Palermo and McVeigh, K. 2018 https://www.theguardian.com/world/2018/sep/12/migrant-rescue-ships-mediterranean

[3] Mcintyre-Mills 2018 A critical reflection on the case of the sinking of the Malu Sara Rescue Boat, in the case study of the documentary: "A totally avoidable tragedy, ABC four corners documentary. Discussion at https://archive.org/details/VN860641

Chapter 4
Displacement, Loss and Enclosure of the Commons: The Role of the Dutch East India Company

Potential of the Double Hermeneutic for Re-framing Epistemic Governance

Janet McIntyre-Mills

Abstract Giddens stressed in *The Consequences of Modernity* that trust is contingent and that risks escalate when transfers are disembedded from local contexts. This paper concentrates on the need to develop policy and praxis to protect the commons through a critical and systemic approach drawing on history, sociology and anthropology. The paper explores Inglehart's (Modernization and postmodernization: cultural, economic and political change in 43 societies, Princeton University Press, Princeton, 1997) notion of culture shift, Norvey et al.'s (International Sociology 32(6): 683–706, 2017) reflections on Inglehart's thesis and Gidden's (The consequences of modernity, Stanford University Press, Palo Alto, 1990) essay on the *The Consequences of Modernity*. The paper discusses how the potential for transformation rests with people who can bring about transformation of taken for granted epistemic policy networks that use so-called root metaphors to shape 'what is inevitable'. Instead, the case is made through critical reflection to reconstruct narratives about current challenges that are framed in terms of the capability approach (Nussbaum, Creating capabilities: the human development approach, The Belknap Press, London, 2011). The paper underlines the importance of research to reframe concepts from above and below to protect and restore the commons. The paper responds to the cascading risks and consequences of modernity and makes a case for a new nonanthropocentric narrative based on our interconnectedness and shared fate. The containerist approach is critiqued by tracing the archetypes that have shaped history. The epistemic policies shaped a culture of profit. The paper explores the dualism, racism and speciesism that has underpinned the way in which governance has been framed. It makes a case for a new narrative based on sharing

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and reciprocity based on our shared fate. There is no 'Planet B' as Macron summed up recently in an address on a state visit to the USA (Macron, There is no Planet B. Address to United States Congress on 25th April, 2018).

Keywords Consequences of modernity · Cascading · Risk · Connections · Double hermeneutic · Trust · Regeneration

Introduction

> If we do not learn from history we are destined to repeat the errors' is George Santayana's well-known aphorism.

The paper develops the argument that the current development challenges in Cape Town, Southern Africa and Bandung, West Java stem from the VOC's (Verenigde Oost-Indische Compagnie or VOC)[1] epistemic policy and governance that commodified the land, waters, people, animals and plants. Their habitat became a source of profit. The aim of the paper is to explore the cascading interconnected challenges associated with food and water security and to trace the impact that capitalism has had on enclosing the commons. The root metaphor for policy and governance (Alasuutari and Qadir 2016) was applied in both contexts with convergent social, economic and environmental effects.

Needless to say this philosophy was shared by many other colonial nation states at the time, and it is so widespread today that it is regarded as a taken for granted approach in mainstream economics.

Interdisciplinary Case Study Approach

The paper is informed by records and current newspaper archives, participant observation, a research project and conversations linked with a symposium. The transferability of lessons learned from Australia and Indonesia for South Africa and vice versa was part of the agenda of a mixed methods symposium[2] on which this paper draws.

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[1] The Cape and Batavia (Indonesia) were colonised in 1652 and 1619, respectively. Skilled slaves from Batavia were shipped to help build the Cape Colony. The VOC was founded in 1602 and it: 'flourished and survived for two centuries. The company, a combination of commercial organisations in various cities of Holland and Zeeland, traded both in Asia and between Asia and Europe. It was the first public company to issue negotiable shares and it developed into one of the biggest and most powerful trading and shipping concerns. The VOC ran its own shipyards, the largest being in Amsterdam. This spectacular trade with Asia made the Dutch Republic the world's key commercial hub' (https://www.rijksmuseum.nl/en/rijksstudio/timeline-dutch-history/1602-trade-with-the-east-voc).

[2] The aim of the multisite symposium at Flinders University in South Australia and University of Padjadjaran (UnPaD), West Java, was to enable students and staff across a range of disciplines to

The Genealogy of Epistemic Narratives on the Right to Exploit: Key Narratives Shaped by History

Research on the Dutch East India Company by Adam Smith stressed Branko Milanovic in a blog posted on the Global Policy website[3] discusses the aptness of the critique made by Adam Smith of late capitalism in the *Wealth of Nations*.[4]

Milanovic stresses the way in which exploitation by big companies has resulted in the impoverishment of nations and local economies and how the Dutch destroyed spices and corn, in order to keep up prices:

> The government of an exclusive company of merchants is, perhaps, the worst of all governments for any country whatever. (Book 4, Ch. 7, p. 722)

He specifically mentions the role of the Dutch East India Company in Indonesia and India, and although he does not specifically discuss the role in South Africa or the long shadow that colonialism casts, this will be a focus of the current paper and the volume from which it is extracted.

My reading of the *Wealth of Nations* (a different copy from his) makes it clear that even during the era of the Dutch East India Company, the exploitation by a company is not good for development as people do not have their independence and are exploited to the extent that it erodes hope and trust in the future.

> "The Dutch settlements in the West, as well as those in the East Indies, were originally put under the government of an exclusive company. The progress of some of them, therefore, though it has been considerable in comparison with that of almost any country that has been long peopled and established, has been languid and slow in comparison with that of the greater part of new colonies". (Smith 1776a, b: 967)

Smith was not very critical of capitalism. His overall argument is that if capitalism is well organised, it delivers a better quality of life than living in a natural state. This of course depends on what one means by *capitalism* and *natural state.* The Dutch East India Company held the monopoly of trade and started a stock market that was able to control commodity prices. Once the settlement at the Cape was established by Van Riebeck and trade with the local inhabitants eroded when it became clear that the settlers wished to control tracts of land for themselves, it was decided to allow company servants to become Free Burghers (free farmers). But the conditions for renting land from the company and trading were set by the company with the goal of maximising company profits. Smith (in this same reference) goes on to explain that complaints would result in sanctions such as exile to Mauritius or other penal colonies.

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explore some of the cascading interconnected challenges associated with food energy and water security that have resulted in displacement, loss of habitat, land, sense of place and identity. The aim of the mixed methods symposium was to make a practical difference to policy in Indonesia and South Africa, both of which have a high rate of urbanisation and a high population growth in cities.

[3] http://www.globalpolicyjournal.com/blog/06/02/2018/bitterness-adam-smith

[4] Smith, A. 2003. *The Wealth of Nations, Bantam Classic*, 2003; edited with notes and marginal summary by Edwin Cannan; preface by Alan B. Kruege. Cited by Branko's *blog*.

Modernisation has moved from extraction of profit in factories and mines at the industrial centres of powerful nation states to the colonial periphery where extraction of profits were extorted through the exploitation of the labour of people and the environment.

The process of treating people, sentient beings and living organic and inorganic systems as things (reification) to be exploited like commodities has become central to a form of capitalism that evolved through the institution of the welfare state and ebbed through the erosion of the protection it once provided through balancing the state, market and civil society in a form of social democracy that is no longer applied.

Currently, social democracy is at risk and the paper traces the way in which the origins of capitalism, based on the displacement of risk and the extraction of profits persists. The role of pernicious forms of capitalism continues to place the market and national interests first. Today capitalism needs to be reframed completely, along lines that protect people and the planet through a better understanding of our interconnections as one strand in a living system that has cascading positive and negative effects depending on how it is managed.

Thus the stewardship role of new approaches needs to work consciously with sources of abundance in nature. Although Pauli (2010) have much to offer, it is important to place the principles of social and environmental justice at the centre and to realise that democracy depends on constant surveillance or 'monitoring from below' (Keane 2009) as well as global benchmarks set to protect the common good, as per the argument of Held (2004) in 'Global Covenant'. The balancing process requires that this be done very carefully through working out the social, economic and environmental impact of our choices. This takes Giddens (1990, 2009) *The Consequences of Modernity* and the *Politics of Climate Change* as a starting point for developing a transformational approach to protecting living systems. Cape Town faces the challenge of increased water insecurity linked with an inability to introduce desalination due to rising costs of electricity (caused by over-reliance on fossil fuels). Increasing levels of urbanisation as defined by the UN Report (2014) and Paul Romer (2009) could be a solution to loss of territory and habitat if the design of cities is changed from horizontal sprawl with a heavy carbon footprint to vertical, green regenerative buildings that recycle and reuse waste to support a cascade economy.

However, displacement of people, plants and animals need to be addressed through innovative new approaches to democracy and governance. The research aims to address innovative policy to support regenerative living in Indonesia and South Africa by drawing on the past Indigenous practices, interaction with Dutch colonisers and current lessons for regenerative practice. For example, in Africa, mud brick buildings emulate termite mounds and have natural air conditioning; this is a traditional design drawing on nature.

In Bandung, Indonesia, biodigesters were built by the Dutch who governed Bandung in 1810. A current failed biodigestor in Bandung is built behind a fish and vegetable market where many displaced people ply their wares. They live in informal housing behind the market. Next to their homes (located near a biodigestor) the

waste lies unprocessed.[5] This approach to waste management was used by the Dutch and the historical record, and archaeological remains show how this was successfully achieved in the past. It is also successfully achieved in the regional area of Cianjur (McIntyre-Mills 2017) where a successful, simple biodigestor suggests how local wisdom can be preserved and applied with better results at a fraction of the cost.

In Cape Town, drought has resulted in the need to rethink water usage. Recycling and reusing water is a matter of survival. In the past a series of aquifers and underwater streams provided water to people living in Cape Town. These sources are currently being rediscovered as part of the commons that need to be shared and protected. The donation of water to the city by fruit farmers has enabled Cape Town to push out the date when water would cease to flow from taps. A rediscovery of sharing and managing the commons is vital for current generations. The historical lessons of how to survive sustainably in the Cape need to be revisited along with the latest research on integrated sustainable living approaches (Pauli 2010) and supporting the commons (Bollier and Helfrich 2012) and by learning from local wisdom of Indigenous first nations (Cram and Mertens 2015).

Previously, water usage was based on shared practices (not unlike the Balinese system) that were based on trust and sharing. Ironically in the Cape, it was based on slave labour and was managed by the slaves (many of whom were radical thinkers, academics and skilled artisans removed by the Dutch East India Company from Indonesia).

Local Khoi men and women worked for the colonists, for the Dutch and the British. When the Dutch were replaced by the British as colonial leaders, the seeds for apartheid were sown by controlling movement and through taxation. Female slaves and local indigenous people worked for the Dutch and were commodified and exploited (Taylor 2017).

In Cape Town the Dutch had access to the flowing springs on Table Mountain[6] and in the Constantia and Rondebosch areas as well as on the sides of the mountain in St James and Simons Town. In the early days of the colony, the Dutch and the British did not control water access. But people's movements were curtailed.

Worden (2017) describes how slaves used to wash clothes in the Platteklip Mountain stream:

> In Cape Town, most slaves were owned by the VOC and were housed in barrack-like accommodation at the Company Slave Lodge. They worked at Cape Town's harbor and quarry as well as on Company woodcutting and cattle posts outside the town. Most settler households in Cape Town also possessed slaves who carried out all domestic labor, such as

[5] Gipa, A. 2015 Bandung to use biodigester in waste-based power plant Jakarta Post ^th August 2015 file:///F:/Bandung%20to%20use%20biodigester%20in%20waste-based%20power%20plant%20-%20National%20-%20The%20Jakarta%20Post.html The aim of the 2-ton biodigester, according to Dipa (2015), is to produce power:

According to Bambang, a 2-ton capacity biodigester facility, like the one he installed at Gedebage market in Bandung, could produce up to 15 kilowatts of power per hour.

[6] Cape Town water crisis/hidden vaults in Table Mountain adam spires - wannabe vlogger Published on Jul 28, 2017. Retrieved August 28, 2018.

> fetching water from pumps, cooking, and cleaning, as well as hawking fruit and vegetables in the local marketplace at Greenmarket Square … on behalf of their owners. Female slaves also washed clothes at the Platteklip stream on the slopes of Table Mountain for private households, the military garrison at the Castle, and the ships anchored in Table Bay.

Paradoxically, in the current drought situation where Cape Town faces the prospect of Day Zero, the value of springs has been highlighted, and a bill has been passed to stress that water needs to be carefully managed. Owners of bore holes need to account for the water they use as from January 12, 2018, it is regarded as part of the commons.[7]

> On January 12, however, the water department decreed that everyone in the Western Cape, specifically individual groundwater users, had to install "electronic water recording, monitoring or measuring devices". There was no deadline for doing so but the first set of resulting measurements had to be emailed to the department before noon on Monday.

Property rights to land are also being placed on the new agenda for Cyril Ramaphosa in his first 100 days as Prime Minister. The displaced seek land restitution without compensation and dates have been set across South Africa for hearings on land claims.

In Bandung the Dutch introduced strict hierarchical management structures (Purwanto 2018) and ensured that refuse and water management occurred. Archaeological remains of a biodigestor and clay pipes indicate the extent to which infrastructure was carefully managed. Currently, Bandung has refuse management systems behind the fish market that is not well managed. Water vendors ply their trade of filling water from holding tanks placed next to the failed biodigestor and the informal housing belonging to people displaced from regional areas. Paradoxically some of those displaced to the cities come from a tea plantation set up by the Dutch on which families have worked for more than five generations. The tea plantation (previously owned by the State) has been sold to a Chinese multinational. Despite Jokowi's land rights legislation that entitles everyone to land, the people were required to leave and were not informed of their right to alternative land.[8]

Bandung also faces energy costs and the challenge of encouraging the take up of renewable energy options. Some of the regional areas near Bandung rely on small biodigesters to recycle waste and to provide energy for domestic use (lighting and cooking); unlike the large (failed) biodigestor built by the Asian Development Bank and mismanaged by provincial government, the small biodigesters are managed by an award winning co-operative in Cianjur.

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[7] De Wet, P. Western Cape – boreholes made illegal Mail and Guardian 18 Jan 2018 08:06 https://mg.co.za/article/2018-01-18-tough-new-regulations-hit-western-cape-borehole-users.

[8] This case is discussed by McIntyre et al. 2018, forthcoming, volume 2 of the Springer Series. The cities and regions on which they depend are addressed in terms of their approach to food, water and energy security. The role of labour in supporting the Dutch East India Company and the role that the company played in undermining the commons are briefly sketched. Cape Town was unable to implement a desalination plant, because of energy insecurity (as a result of over reliance on coal and a lack of renewable energy). Intermittent outages made Cape Town city council decide not to bother with the introduction of a desalination plant. Such a plant is also potentially damaging for the environment unless ph. levels are carefully managed.

The chapter maps out a program of study to address the way in which people address risk and the social, economic and environmental strategies that they use. Traditionally people may have approached risk through 'spending, saving or investing' (Zuijderduijn and De Moor 2013). Hoarding grain to shore up defences for lean years was one approach to risk. Increasing diversification included spreading the production across a range of regions so that climate-associated risks could be minimised. Other options include diversifying a range of investments. One of the strategies that became the basis for the first market was to back investors who 'opened up' markets in the new world. The VOC held the monopoly of trade, started a stock market and was able to control commodity prices. The profit motif shaped the attitude to land and sentient beings as resources.

The paper makes the case that risk was displaced from Holland to the colonies through enclosures, commodification and enslavement. The short paper will give an overview of the way in which Indigenous people such as the Khoi were displaced in the Cape and how, in Batavia, people were enslaved and sent to the Cape to work as skilled builders:

> Within four years of Van Riebeeck's arrival, the first war between the Khoikhoi and the Dutch broke out, as the Khoi clans tried to drive away the Dutch who had appropriated their land, forcing them into less fertile areas of the region. Soon the colonial project was well underway. With the systematic importation of slaves from mainly Dutch East Asia the Cape economy developed into a slave-based economy. This had profound repercussions at all levels of society, determining as it did social relations based on a slave/servant-master paradigm that translated within a short period of time into a racial hierarchical social order.[9]

Slave labour from South East Asia was supplemented with slaves from the Portuguese colonies. Their skills as farmers, builders and domestic workers built the economy of the Cape. When the British took over in 1830, slavery did not end. The labourers on the land continued after the formal end of slavery. In the interior slavery was the result of displaced Boer farmers making arrangements with rival tribes to enslave the surviving women and children as indentured labourers. Morton (2017) describes how this form of disguised slavery called *Inboekelinge*, *a form of indentured labour*, persisted well into the eighteenth century.

Axiology, Ontology, Epistemology and Methodology

The axiology underpinning these ventures was profit and taking civilisation (and enlightenment) to the colonies. The argument developed in this paper (and the volumes from which it is drawn) is that a new approach to risk is required, based on what Bostrom (2011) has called 'existential risk'. These include social, economic and environmental risks to human beings and the planet.

This paper makes the case that the ontology underpinning risk management needs to be expanded to include an approach that appreciates the interdependency

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[9] http://www.sahistory.org.za/topic/dutch-east-india-company-deicvoc

of living systems and that human beings are a strand within this system. The non-anthropocentric epistemology underpinning risk management needs to be rooted in many ways of knowing, including the arts, social and natural sciences as well as an appreciation of tacit knowledge of many living systems.

The methodology to address risk management advocated in this paper (and in the program of research from which this paper is drawn) advocates reframing economics based on (a) a priori *norms* (that appreciate the interconnectedness of social, economic and environmental systems) and (b) a posteriori *measures* to protect a raft of social, economic and environmental wellbeing stocks, as suggested by Stiglitz et al. (2010). The paper then continues to make a case for the need to change the narrative that supported the epistemic policy to maximise profit. Later the paper develops an alternative epistemic policy narrative to protect wellbeing through advocating a form of development that focuses on ways to promote the role of the ecological citizen who strives to 'be the change' and to demonstrate this through everyday praxis.

The notion that the Cape was 'unpopulated' ignored the existence of local population who were quickly suppressed in frontier skirmishes. The first buildings were forts.[10]

Giddens (1990) stressed in the *The Consequences of Modernity* that trust is contingent and that risks escalate when transfers are disembedded from local contexts.

Large city populations become unstable when living costs are unaffordable. It is not surprising that the so-called Arab Spring started as a result of rising food costs. In Solo, Indonesia, riots occur when living costs and cooking oil become too expensive for the small street traders to survive. The demographic (dividend), namely, high population growth and rising number of young people, could become the trigger for political unrest in rapidly urbanising cities such as in Africa and Indonesia where the rising levels of unemployment and poverty result in the vulnerability of women and children to crime and trafficking.

This paper concentrates on the need to develop policy and praxis to protect the commons through a critical and systemic approach. The paper explores Inglehart's (1997) notion of culture shift, Norvey et al.'s (2017) reflections on Inglehart's thesis and Gidden's (1990) essay on the *The Consequences of Modernity*.

- The greater the level of (A) public education on Nussbaum's ten capabilities for a life worth living, the more likely (B) people are to participate as active agents to protect their rights.
- The greater the level of (A) participation through diverse forms of engagement to protect of local habitat and local living systems as stocks for wellbeing, the greater the mitigation and adaptation to climate change.

A completely new approach to economics is needed if we are to have a hope of addressing the consequences of the worst aspects of modernity. The crisis in water delivery in Cape Town is the result of cascading factors that will be explained in this brief paper designed to join up the policy dots and to develop the case for

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[10] https://www.colonialvoyage.com/dutch-south-africa/#

transformative praxis based on the assumption that social and environmental justice rests on an understanding of our interconnectedness. If the UN 2030 Development Agenda is to be achieved, then widening gap between perceived needs and outcomes will need to be addressed through an alternative approach to representation, accountability and regeneration.

When food, water and energy costs rise, it poses a threat to human security; it is time to question the way in which economics currently values the essentials of a life worth living. This is a point made by Stiglitz et al. (2010) who stress the importance of supporting a raft of measures to support so-called wellbeing stocks for future generations. This theme was elaborated in *Transformation from Wall Street to Wellbeing* (McIntyre-Mills et al. 2014) in which the case is made for a new way to address cascade economics by valuing the fabric of life appropriately.

Small pilot projects to evaluate alternative ways of engaging the community to think about the social, economic and environmental indicators of wellbeing were tested by means of a prototype. The focus is on protecting 'wellbeing stocks' a concept adapted from Stiglitz et al. (2010: 15) to refer to a multidimensional measure of wellbeing spanning.[11]

In order to manage the commons, mutual agreements need to be negotiated, and records need to be kept, in order to protect the interests of stakeholders. The commons need to be theorised as a legal concept (Marella 2017), a transformative governance concept (see *Planetary Passport*, McIntyre-Mills 2017 and *Systemic Ethics*, McIntyre-Mills 2014). *Planetary Passport* provides a new epistemic narrative and responds to the 2030 Development Agenda and suggests a way to enhance representation and accountability by extending the Millennium Goals and UN Sustainable Development Agenda. It reflects on studies of alternative architectures for democracy and governance and suggests a way to extend local engagement in social, economic and environmental decision-making.[12] All the points are made in *Planetary Passport* and *Balancing Individualism and Collectivism* and again in forthcoming companion volumes for Contemporary Systems Series called 'Mixed Methods and Cross Disciplinary Research Towards Cultivating Eco-systemic Living: We are the land and the waters' and 'Democracy and Governance for Resourcing the Commons:

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[11] '1. Material living standards (income, consumption and wealth), 2. Health, 3. Education, 4. Personal activities including work, 5. Political voice and governance, 6. Social connections and relationships, 7. Environment (present and future conditions), 8. Insecurity, of an economy as well as a physical nature'.

[12] The engagement processes (see *Balancing Individualism and Collectivism*, McIntyre-Mills et al. 2017) that enable protecting the commons are explored in the companion volumes in which the rationale for a new way of living is developed with participants in Africa and Indonesia, where risks associated with displacement and loss are explored in more depth. The rationale for a more ethical form of representation and accountability to support cosmopolitan transdisciplinary approach is detailed in *Systemic Ethics* (McIntyre-Mills 2014). Then in *Planetary Passport for Re-generation: knowing our place through recognizing our hybridity'* (McIntyre-Mills 2017), a case is made that the commons could be protected through working across conceptual and spatial boundaries to enable low-carbon, virtuous living in which resources are saved and regenerated to protect current and future generations of living systems.

theory and practice on rural-urban balance to address loss and displacement'[13] . The program of research conceptualises new architectures for democracy and better governance through:

- Addressing the issue of a priori norms and a posteriori measures for transformation towards regenerative living
- Finding ways to match social, cultural, economic and environmental property decisions to perceived needs with a focus on food, energy and water security
- Narrowing the gap between perceived needs and the way resources are distributed and the way it influences service outcomes

Food, Energy and Water Security in Cape Town and Bandung

Large city populations become unstable when living costs are unaffordable. It is not surprising that the so-called Arab Spring started as a result of rising food costs. In Solo, Indonesia, riots occur when living costs and cooking oil become too expensive for the small street traders to survive. The demographic (dividend), namely, high population growth and rising number of young people, could become the trigger for political unrest in rapidly urbanising cities such as in Africa and Indonesia where the rising levels of unemployment and poverty result in the vulnerability of women and children (crime and trafficking).

The need to link positive vocational training with positive digital engagement through social, economic and environmental pathways to wellbeing is very important for human security. The training in 'joining up the dots' is facilitated by the pathways to wellbeing software.

Bandung is chosen for comparison with Cape Town because both cities face increased urbanisation. However, Indonesia has a policy that fosters recycling of waste and water as well as a policy on rural development. It is called the 'Jokowi one village one entrepreneurial project' to support poverty reduction. This could provide lessons for sustainability, and approach could inform vocational education and training in South Africa to learn from the experience in Indonesia.

The research contributes to a new area, namely, the commons as a process and a sense of connection to living systems, rather than as a resource 'held in common', to cite Bollier and Helfrich (2012)[14]:

> *The commons is not a resource.* It is a resource *plus* a defined community *and* the protocols, values and norms devised by the community to manage its resources….

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[13] These volumes are due for publication in 2018, based on our symposium in December hosted at Flinders and University of Padjadjaran. Colleagues from University of South Africa where I am honorary Prof also attended and have provided papers.

[14] 07/15/2011 'I am always trying to figure out how to explain the idea of the commons to newcomers who find it hard to grasp. In preparation for a talk that I gave at the Caux Forum for Human Security, near Montreux, Switzerland, I came up with a fairly short overview, which I have copied below…:http://www.bollier.org/commons-short-and-sweet'

> **There is no commons without commoning**—the social practices and norms for managing a resource for collective benefit.

It is a sine qua non of critical systemic research that wicked problems need to be researched critically and systemically. Wicked problems by definition are complex. They comprise many interrelated variables that are perceived differently by different stakeholders and must be explored contextually (see Flood and Carson 1993; Rittel and Webber 1984; West Churchman 1979, 1982). However, the collaboration across stakeholders needs to be guided by the axiom that we can be free and diverse to the extent that our freedom and diversity do not undermine the common good of both current and future generation of life.

This axiom has been explored in depth in previous work (see McIntyre-Mills 2006, 2014, 2017). It explores the notion that our fate is determined by a realisation of our interdependence. It aims to increase an understanding of life chances and dynamics of vulnerable population groups in areas most affected by climate change-related areas. Significantly, the collection responds to complex ethical policy challenges posed by the Paris Agreement and the UN Sustainable Development Goals, in order to narrow the gap in living standards between rich and poor. Policy choices made by this generation shape the wellbeing of both current and future generations. The outcome will be a better understanding of sociocultural discourses, life chances and behaviour to inform policy and to improve public administration by learning what does and does not work and why from the most vulnerable populations.

For example, in Alam Endah, a case study demonstrates low rates of outmigration as a result of community engagement in sustainable living and regenerative activities. The potential for women to be further empowered through enhancing their representation and accountability is explored. Whereas in Cianjur, a contrasting case study demonstrates low levels of sustainable businesses and high rates of outmigration resulting in higher risks of trafficking for women and young people.

Methodology: A Critical Review of Everyday News on Democracy, Agency and Governance

A critical reading of the sociology and anthropology of development (Gibson-Graham and Miller 2015) and capabilities studies (Nussbaum 2011, Sen 2000) provides the lens through which human rights are considered. The case study makes a contribution towards integrating data on so-called wellbeing stocks spanning the health of multiple species, habitat, housing and social inclusion informed by mixed methods (Hesse-Biber 2010; Mertens 2009, 2016), comparative case studies and a critical reading of everyday news media.

The paper is about the need to do new forms of 'field work' spanning digital and paper-based archives on current events that are experienced and the accompanying

news reportage as issues unfolds[15]. John and Jean Comaroff used 'news' as a lens to reflect on the everyday, in order to understand contemporary issues which today is bandied around as real versus fake news. In this paper a case is made for a way forward to address gendered, cross-cultural perspectives on what it means or could mean to shape a new ecological narrative about citizens who conserves resources through everyday decisions and who sets the example by making changes which drive transformation from below. The symposium on which the paper draws enabled critical and systemic reflection on conservation and consumption by drawing on primary and secondary research data as well as everyday news.

Presentations on real news and the lobbying by social movements have driven some of the culture shift that has enabled Cape Town to push back Day Zero to 11th of July at the time this paper was written.

Daily reflection on everyday challenges in the Anthropocene (where choices matter in a very real sense) provides a lens for critical reflection. The case is made based on research underpinning the two volumes for the mixed methods symposium that cultural transformation occurs from below and above but that the momentum for transformation needs to be maintained by balancing individual and collective interests (McIntyre-Mills et al. 2017) to protect the commons.

In *Systemic Ethics* (McIntyre-Mills 2014), *Transformation from Wall Street to Wellbeing* (McIntyre-Mills et al. 2014) and *Planetary passport* (2017), the emotion of greed is explored and the way people consume, in order to have status in a context where they are disrespected in capitalist society (Wilkinson and Pickett).

In more unequal societies people may be tempted to consume more to keep up appearances. This feeds into the agenda of capitalist advertising which supports the market.

Culture shift has achieved changes in consumption in Cape Town through policy and governance changes from above and social pressure from below to change. Giddens (1990: 15) stresses that the so-called double hermeneutic is vital. We are part of our subject matter, and we can transform the 'real' situations through reframing and constructive engagement. Emancipation, however, from old styles of left-right thinking needs to be carefully considered.

The left/right dichotomy seems to mean less and less in the political spaces left by monopoly capitalism in a neoliberal nation state that has open boundaries for global capital, but closed boundaries for the free movement of people. Examination of the principle values that underpin parties and policies should be a starting point. The extent, to which people and the ecosystem on which they rely are protected, should be the basis for decision-making that is systemically

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[15]Who decides what is real or fake and on what basis? Critical systemic social anthropology helps reflect on current events by drawing on documents and media. It can be regarded as fieldwork on everyday life and experiences. Axel (2002) edited a series of papers on 'historical anthropology as a way to comment on everyday life'. Jean Comaroff contributed to Axel's volume, and when I read her chapter, it reminded me of her role in my life as she kindly commented to my own work many years ago as a raw social anthropologist trying to write a Master's thesis.

ethical and sustainable. Self-reflection and the ability to think about our thinking and practice is a first step.

This is a discursive piece drawing on my experience as a participant observer in a range of places (in which I have lived as a citizen, a visiting academic and as a reader of everyday news[16]). I make the case that context matters when matching the right response in context and like Flyvbjerg (1998) I see no contradiction in being guided by a priori norms plus the need to assess the extent to which democracy supports the everyday lives of people. I am tempted to re-consider the term 'grass roots democracy', because in the era of climate change, access to lawns and leafy suburbs is increasingly rare.

I want to cast my mind to the role of the *Dutch East India Company* (VOC) in shaping the current way of life in two places with which we are connected, namely, Cape Town and Bandung. The history of Cape Town and Bandung has a parallel history in that both places were colonised by the Dutch and then recolonised by the British and Japanese, respectively.

In both contexts, Indigenous people were subject to colonial law, and the land, waters and people were seen as the territory of the company acting for their colonial masters and the glory of the Dutch empire. Similarly the British government regarded her colonies as part of their empire, and after the independence from colonial rule, the territories became part of a common wealth of nations linked with Britain.

The Japanese government saw Indonesia as a bulwark against China and regarded the defeated Indonesians as subjects who were required to kowtow to the Japanese emperor. The issue of rights during their respective colonial pasts is thus a common theme across both Cape Town and Bandung.

The local knowledge of people in the Western Cape and West Java was regarded as a potential source of profit for the Dutch. Paradoxically in both places, the enclosure of the commons by the VOC and the expansion of neoliberalism has resulted in the potential for cascading systemic risks. At the time the paper was written, Cape Town was in the midst of a water crisis but, in the early days of the Cape, made careful use of aquifers in the planning of the city. The Cape Town provincial government has been prompted by local historians to reconsider the careful management of underground water supplies. Currently springs and aquifers are the source of water for many residents who fear that the municipal water supplies will run out before the next rainy season. The management and protection of water quality is now a source of tension across the local, provincial and national level as the political party in the Cape; the Democratic Alliance (DA) stresses that it is a government responsibility as set out in the constitution. The federal government stresses that

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[16] My contributions include reflection on time spent during January helping my elderly parents prepare for Day Zero an event that has been staved off through conserving water and by donations of water from agricultural users to the city of Cape Town. It also draws on contributions in the form of posters, papers and presentations as well as participant observer experiences in Australia, Indonesia and South Africa of the experience of trying to conserve water through consuming less as part of the response to the plummeting water levels in the six dams serving Cape Town.

legislation makes it clear that it is a provincial responsibility. The bottom line is that the taps could run dry when the dam levels reach 13.5%. At the time of writing, the dam levels are at 16%. The rural-urban imbalance in South Africa is due to the control of migration which is a legacy of the Dutch and the British and then the successive colonial regimes.

The management of run off from Table Mountain into springs provided a safe supply of water which became a more or less forgotten resource as Cape Town developed a system of dams to provide water for the city.

Bandung has a refuse management crisis, but in the early days of Bandung, the Dutch built canals and garbage collection points as part of the management of Batavia. In the hills near Bandung where the tea plantations of the Dutch were developed and where a local dairy co-operative is located, biogas is routinely used. biodigesters are built and communally managed.

The co-operative approach is key to the success, and we discussed the importance of adding value to milk products and diversifying away from animal husbandry to protect local products such as protecting free-ranging civet cats (or luwaks) who eat local foliage and whose faeces are used to produce high-priced coffee. Maintaining the cycle of fertilisation is important to maintain the natural habitat of the luwaks and the forests that provide a green belt, prevent erosion and provide a micro climate that supports the biodiversity of the region. This has been supported by Maathai (2004) and Flannery (2012).

As people move to the city environments, it becomes clear that much of this knowledge is set aside as people strive to survive in a competitive capitalist environment. Instead of the locally maintained biodigesters for biogas production associated with face to face village culture and the co-operative system, waste management is no longer regarded as shared concern.

A biodigestor project was funded by the Asian Development Bank and set up without acknowledging that the knowledge already existed during the colonial era when urbanisation was fostered by the Dutch and when commercial production of tea on plantations started.

The profit motif of the Dutch and Japanese has been maintained by the Indonesian government who recently privatised a section of a plantation in the Ciwidey region. This has resulted in people leaving the land after generations.

The landless settled in informal settlements such as the area located behind the Central Bandung Market, known ironically as the 'Hygienic Fish Market'. The biodigestor built behind the fish market and an informal sector housing area has failed at the time of the research (McIntyre-Mills 2017). It was not properly set up as a community development initiative. The rubbish was merely piled next to it. No one felt responsible for doing the work of loading the rubbish into the digester plant. A bottled water distribution point is located less than 100 m from the plant and surrounded by decaying matter, including discarded nappies. Water vendors come with their bicycles and water containers and then distribute the decanted water in litre and half litre bottles.

For many vending water or selling vegetables, fish and meat at the market and further afield enables their survival.

Towards Research for Transformation

According to Boulding's (1956) analysis of the science, the relationship within and across the levels becomes increasingly complex from the inorganic to organic plant and animal life and then social and cultural systems. Although he uses an organic analogy, he divides the science into categorical levels—as if they are rungs of an Aristotelian hierarchy—without explicitly stressing that human beings are indeed animals and that we are hybrid hosts to organic life in the form of a range of micro-organisms. We produce waste materials that in turn provide the organic basis for plant life, and we are unable to survive unless we maintain a chemical and mechanical balance. The potential for augmenting our intelligence (or not) by using digital technology connects human beings directly with artificially designed forms that could become post human (for better or worse). Thus designs and the design choices of human beings are very important for the future of living systems. Whilst general systems theory has the potential to inform our understanding of the world and to alert us to the way in which organic life and intelligence builds as a continuum across inorganic and organic life, it needs to be open to critical revision.

Ariel Salleh (2016) and Donna Haraway (1991, 2016) analyse the way in which science, politics and ethics are interrelated and gendered. But knowledge discourses as Foucault and Gordon (1980) and Bacchi (2009) has cautioned are also shaped by power imbalances. An intersectional analysis reveals how much worse off a woman can be if she is also working class, destitute, a member of a marginal political group, a refugee or disabled.

Nussbaum's (2006) discussion of 'The Last Frontiers of Justice' to those who are outside the protection of the social contract, namely, women (in some nation states), young people and sentient beings who are voiceless, is later developed into a plea for rights for all sentient beings (based on an idealist categorical type argument). Without supporting the essentialism of categorical politics, a right-based argument is vital if we are to extend the ethics of care and solidarity with others beyond the boundaries of our family, friends, nation state and care about others by virtue of their right to a life worth living.

A negative use of divide and rule has long been a tactic. It was employed ruthlessly by the Dutch East India Company and by other colonisers that followed. Identity politics can be employed in positive ways if it helps to build postnational solidarity. The era of the Anthropocene needs to be seen as the result of unequal power dynamics that are class based, gendered and rooted in a colonial past and a global economy that remains alive and well and persistent in striving for profit at the expense of those who cannot resist dispossession or wage slavery.

Ariel Salleh (2016) stresses that Aristotle developed hierarchical categories that ranked God, man, woman, slaves, animals and the natural world. She stresses that the disassociation of the women's movement from the natural world as a form of resistance is problematic and that ecological feminism is a response to this. Whilst Salleh's analysis demonstrates a deep understanding of the politics of the women's movement and the analysis is sound, her conclusion that all problems can be rooted

in masculinity and gendered identity politics is problematic, as it results in her falling into her own trap. By saying god is a woman also falls into the same trap, albeit a satisfactory thought (unless of course she is a femocrat!). Whilst she makes a sound case for fluidity and interconnection, her conclusion reverts to identity politics and categorical thinking.

Dualistic thinking is indeed problematic, and the division of us/them/culture/ nature and mind/body is a result of the Cartesian legacy, but woman merely change places with men in a hierarchy. Whilst most of the criticisms made by Vandana's critics are easily refuted and clearly rooted in support of the status quo – namely, neoliberal economics and the globalisation of agriculture—the point made by some that her work tends to privilege nationalism and Hinduism is perhaps a little unfair but worth stressing that a postcolonial approach needs to acknowledge the past, namely, that people, women and indigenous women globally, were and are oppressed and dispossessed of habitat. The level of oppression increases with the degree of power imbalance.

But the potential of critique is that the 'molar' rooted category is seen instead as 'molecular' potential state capable of transformation. This is where the work of Deleuze and Guattari (Bogue 1989) and Haraway (1991, 2016) informs my under-standing and where I see the potential of praxis. Critical analysis needs to be rooted in agency and to learn from lived experience, but it also needs to not be limited by personal (past) experience. Hope for the future rests in the capacity to appreciate potential opportunities (without naivete and without a critical reading of the social, cultural, political and economic situation).

Boulding is also correct about the importance of values in shaping transforma-tion for the better or worse. My understanding of the potential for cultural change is rooted in an organic appreciation of cross-cutting power dynamics and the potential for bringing about change at a personal level and through political nudges and gov-ernance measures to ensure transparency in the use and management of resources.

The continuum across organic and inorganic systems can be better understood as hybrid and interconnected. In this sense the insights of Haraway (1991) and Deleuz and Guattari (Bogue 1989) are key to this understanding of webs and flows which recognise the potential for change. The identity politics of 'us versus them' can be used across all political persuasions (including the neoliberal state) to divide and rule. Thus although I accept the argument by Ariel Salleh (2016) that gender is nec-essary for understanding poverty and climate change, it is insufficient and emotion-ally bleak to polarise half of humanity when transformation requires a cultural shift of the currently powerful to recognised their shared vulnerability with the (cur-rently) powerless. The role of social movements to create solidarity in cross-cutting intersectional networks without abandoning principles requires balancing individ-ual and collective needs in the interests of living systems.

Socio-economic paradigms as we know them today are merely a reflection of current politics and have the potential for change through drawing on the potential of a new form of ecology and economics.

The critical systemic approach relates to the way in which people perceive the world and the purposive way in which human beings try to address areas of concern.

The complexity of the system increases as the number of variables increases, the relationships across variables increase and the way the variables are perceived differently by different stakeholders.

Transformation requires transcendence based on an appreciation of our interconnectedness with all living systems and our responsibility for all life: ecological governance informed by a sense of cosmopolitan values and rooted in an appreciation of nature may provide the seeds for regeneration (Bignall et al. 2016).

Globally water insecurity is increasing in major cities around the world as climate change deepens. The same federated news 24 report[17] cites Emeritus Professor Graham Cogley, of Trent University, Ontario Canada as follows:

> "Dozens of mega-cities, rich and poor, are sinking: Jakarta, Mexico City, Tokyo and dozens of cities in China, including Tianjin, Beijing and Shanghai have all dropped by a couple of meters over the last century". The same report then cites Arjen Hoekstra, University of Twente, Netherlands directly as follows, and I quote it in full as follows:
>
> "Half a billion people in the world face severe scarcity all year round… More than one in three live in India, with another 73 million in Pakistan, 27 million in Egypt, 20 million in Mexico, 20 million in Saudi Arabia and 18 million in war-torn Yemen."

Enclosure of the Commons

The history of enclosures and arguments about privatisation of the commons can be traced back to Dutch East India Company, and the theme follows through as the British colonial powers expanded their territory to include the so-called commonwealth.

But the focus in this paper is on Cape Town, South Africa, and Bandung, Indonesia, where colonisation by the Dutch British and the Japanese impacted on the independence of the local people.

The political and historical context of both cases need to be taken into account to understand social and environmental in justice that results from epistemic policy on climate change driven by elites who have complicit links with the market and unsustainable carbon economies that make the IPPC formula window dressing, rather than a normative a priori guide to policy making and a guide to a posteriori governance to achieve the UN benchmarks set by the local government agenda.

It is small wonder that without a comprehensive intersectional understanding, people feel 'let down' by current policies.[18]

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[17] https://www.news24.com/Green/News/for-global-water-crisis-climate-may-be-the-last-straw-20180213

[18] The Intergovernmental Panel on Climate Change (IPCC) formula suggests that the privileged urban lives of some could lead to 'existential risk' for people and the planet (Bostrom 2011) which is why it is necessary to enhance our understanding of consumption. Nussbaum discusses the essential capabilities that are needed by sentient beings to live a life worth living. She takes the initiative to design and construct the essential conditions. She is not suggesting that people should be limited; she is making a case for extending rights beyond the human, and in many ways she is

Donna Haraway stresses that some of the challenges need to be addressed within very specific contexts. Haraway stresses that all knowledge is situated and that we need to develop specific responses by appreciating the many factors that shape life chances within context. How we make sense of the world is shaped by our life experiences. Being aware that we are indeed the boundaries, because we can make and remake the boundaries through our policy decisions, is an important starting point for design. A great deal of the writing by Haraway critiques the notion of essentialism and instead stresses that being boundary creators frees people from the limitations of categories and recognises our hybrid relationships with others including living systems of which we are a part.[19]

The challenge is to face up to our interconnectedness and to be able to hold in mind many variables. "Us/them" need not expressed in terms of tribes, organisations and nations. Spaceship Earth is a metaphor used by Kenneth Bounding to help reconnect humanity's sense of geography with the planet and the universe of which we are a part. It is a plea that we should strive to achieve transcendence. Human beings face the challenge of wanting to be individuals and also to be part of group. They have evolved through ability to co-operate and compete.

In order to address areas of concern in a manner that is appropriate, it is necessary to develop ethical literacy by working across disciplines in the social and natural sciences. The argument that I develop is that by drawing on primatology, we can learn that animals (primates and many mammals) have the capacity for empathy, reciprocity and fairness and that human beings have evolved because of their capacity to co-operate and not only their capacity to compete. Nevertheless, the next step for transcendence is to recognise our interdependency. Therefore, the thesis I develop in *Planetary Passport* and Recognising our hybridity and interconnectedness is the next step we need to take in order to secure our interdependent future within an increasingly fragile living system (McIntyre-Mills 2017).

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reframing in the way that Haraway advocates when Nussbaum (2006) wrote *Frontiers of Justice* and discussed the current limitations of social contract theory to protect those who fall outside the boundaries of the nation state or outside the parameters of state protection as they are non-citizens. These include asylum seekers, those who have lost citizenship because they are labelled criminal and 'other', the disabled, and she importantly extends protection to all sentient beings and the need to protect the environment on which we all depend. In this way she introduces protection of habitat for all living systems, although she does not specifically spell out our hybrid inter dependency. Andrea Nightingale has developed an intersectional study on access to land in Nepal that is shaped by caste and gender. Thus intersectional analyses need to take categories as just one dimension of more comprehensive analyses to support social and environmental justice.

[19] Haraway's approach is very different from Martha Nussbaum's approach. Nussbaum is normative in prescribing the conditions for human rights. I think that whilst their approaches are different, both have much to offer in terms of providing guidelines for protecting people and the environment. Haraway analysed the oppositional logic of scientific and sociological narratives to explore the way in which we make sense of the world in terms of us/them, west/east/ animal/ human and machine/human. Haraway's mission was to demonstrate that we can make choices about how we draw and redraw these boundaries.

New narratives stressing our interdependence are needed to reframe the current approach to containerist us/them thinking that shaped by international elites who are supported by capitalist agendas.

Giddens (1990: 59 see Fig. 1) outlines four dimensions of modernity, namely, which I drawn on closely and to which I add comments and which I extend in square brackets:

- 'Surveillance (through control of information and supervision of labour and the market)' [now applied through increasingly formalised means as exposed by Greg Snowden and Julian Assange through in WikiLeaks]
- 'Military power (control of means of war)' [through industry with support of capital and the state which explains the importance of weapon races between nation states competing for power and ensuring that they have control through superiority in weapons of mass destruction]
- 'Capitalism [capital for some at the expense of others through competitive labour and markets' [that explains the way in which people and the planet are increasingly commodified]
- 'Industrialism' [through striving to achieve transformation of existing ecosystems through mastery and a non-ecological approach]

The lack of ecological thinking has yet to be acknowledged in current policies in South Africa that focus on nuclear power and deals that support coal at the expense of more renewable options.

Giddens (1990: 171) outlines the high consequence risks as 'Growth of totalitarian power', 'nuclear conflict or war', 'Collapse of economic growth mechanisms' and 'ecological decay or disaster'. Internationally we are on track to experience all these scenarios; however, we do have the potential to redress them through critical systemic intervention.

The double hermeneutic enables us to address the challenge through transformational praxis that makes a difference socially, economically and environmentally through everyday choices. The first is to accept that we are all human animals and that 'there is no planet B', to cite the French President, Emmanuel Macron' (2018) address to the US Congress.

The post materialist 'culture shift' (Inglehart 1990, 1997) requires both personal and political shifts brought about by policy transformations. The systemic interventionist approach by Midgley (2000) provides a way forward through providing steps to address diverse values and the conflicts that ensue. Analysing ways to address an area of concern can be assisted by using an application of Ulrich's 12 boundary questions based on C. West Churchman's design of inquiring systems approach. Whilst Churchman talks of unfolding values and sweeping in, this is extended in the West Churchman Series volume 3 (McIntyre-Mills 2006) to include social, cultural, political and economic variables in order to enhance decision-making. Churchman (1982) in *Thought and Wisdom* stresses that decisions (derived from Latin to cut) need to be made based on our values and that we should remain ever vigilant about the way in which religion, morality, politics and a sense of aesthetics can filter the way in which we see the world. He calls these 'the enemies within', because they make us human and compassionate or passionately inhumane.

Critical heuristics need to include social, cultural, political and economic variables, in order to enhance decision-making (McIntyre-Mills 2006). Churchman (1982) in *Thought and Wisdom* stresses that decisions (derived from Latin to cut) need to be made based on our values and that we should remain ever vigilant about the way in which religion, morality, politics and a sense of aesthetics can filter the way in which we see the world. He calls these 'the enemies within', because they make us human and compassionate or passionately inhumane. Thus the summary of 12 boundary questions (developed by his colleague Werner Ulrich based on his work) is only a guide to decision-making and should not be confused with a compartmentalist approach that ignores that all decisions need to be constantly revised to protect the webs and flows of living systems in which we are only a strand. So decisions made in the policy context need to be mindful of our responsibility to protect the commons, and these can be informed by using critical systemic thinking tools, starting with a critical review of patterns in data, but also the assumptions and values that underpin them.

A realisation that feedback loops based on systemic interconnections are vital to understanding risk has been raised by mainstream thinkers in sociology and economics. For example, whereas in his early books Ulrich Beck (1992, 1998) writes of the 'boomerang effect' of poverty and climate change in his later work Beck (2005, 2010) explicitly recognises carbon emissions and climate change and the risks they pose for people and the planet. Sir Nicholas Stern (2007) in 'The Economics of Climate Change' stresses that climate change will lead to increased feedback loops that could lead to rapid warming.

Cascading Risks and Policy Context of the Water Crisis in South Africa

The Capetonian Response: Solidarity of Residents Within a Region

By exploring of transformation in water usage in Cape Town, the case study adds to the literature on that culture shifts by providing an in-depth example of the cross-cutting social, cultural, political and economic dimensions of changed behaviour associated with water conservation. It provides an example of the lack of mitigation forward planning offset by a rapid adaptation made at a household level to changed water availability.

The first vignette discussed in terms of the social, cultural, economic and environmental aspects in Volume 1, Chap. 5 and Volume 2, Chap. 15 focuses on the impact of urbanisation in a context of climate change in Cape Town, South Africa, where little preparation has been made for accommodating the higher population. This is partly due to the high cost of a desalination plant because of the cost of electricity (powered by a corrupt energy sector).

Water insecurity in Cape Town is sketched in the context of a neoliberal economy where class and race add additional layers to life chances. Late capitalism plays out at the margins in developing nations where globalisation impacts the market through offering carbon credits to offset polluters as suggested by Bond (2012) who links corrupt dealings across the market and the state that impacted the delivery of affordable safe electricity in South Africa. The World Bank and the South African state are complicit in supporting the Medupi coal plant. Thus by not limiting carbon emissions and continuing to support a coal economy, the IPCC formula has been ignored. The formula stresses: IPCC formula: E (Emissions) = Population × Consumption per person × Energy Efficiency × Energy Emissions.

The need to explore the notion of footprint as a series of interconnections that flow as a result of the consequences of our decisions is elaborated in *Planetary Passport* (2017) and *Transformation from Wall Street to Wellbeing* (2014).

In Cape Town, there is a strong migration from the north. Potential policy pathways need to address displacement and loss that results in a flow of people from North Africa (less developed and more populated) down to Southern Africa (more developed and with a lower population growth rate) (Harper 2016). The push factors from the North are population growth affecting human food security (Harper 2016). These push factors are linked with the political dynamics of social exclusion, crop failure, land grabbing and land loss, food and water insecurity that make people vulnerable to migration or trafficking and the pull of urban life, the so-called Dick Wittington syndrome where life in the city is hoped to hold more opportunities. Thus, the case study focuses on climate change, displacement, loss, unemployment and poverty where drug trade and trafficking the vulnerable exist in the context of social and environmental injustice and insecurity. We are confronted daily of news of displaced people fleeing conflict or natural disaster. In 2018, Cape Town faces a water crisis because of:

- Drought and water insecurity associated with climate change
- An energy crisis
- Greater immigration from the north of Africa to the south
- Lack of governance and planning
- Failure in democracy and a crisis in the financial system

Each of these aspects is addressed in two volumes based on a multisite symposium (McIntyre-Mills et al. 2017) discussed in this chapter. The challenge is to balance the complex individual and collective needs in significant urban centres and the regional heart on which they depend for their survival. If we consider life chances and experiences across cohorts, then we are likely to understand that the social determinants of wellbeing such as access to safe habitat, housing, home ownership, full time and permanent employment will have an impact on resilience to disaster. Further research is needed to provide a better understanding of the intersections across the ecological humanities and ethics (Rose 2015; McIntyre-Mills 2017), demographics and multispecies ethnography.

According to Purvis (2016),[20] water stress is faced by at least 2.7 billion people globally for at least 1 month every year. In South Africa, the drought in the Western and Eastern Cape is thought to be linked with the change in temperature and a high-pressure area that has prevented rain. The cold Benguala current[21] shapes the winter rainfall and summer droughts.[22]

Cape Town, South Africa's largest metropolitan city, faces a water crisis in the rain shadow areas behind Table Mountain that creates upward currents and precipitation. Urbanisation and increased migration to the Western and Eastern Cape in search of work result in increased pressure on water, energy and food. Day Zero has been adjusted at the time of writing from 21 April to 12 April and then to the 11 July as the residents of the Cape continued to reduce their water usage to 50 L per person for a household of four people.[23]

Watts cites a botanist, David Gwynne-Evans:

> You go to the shops and sees people buying 20 bottles of water. It is ridiculous increase of disposable plastic.

In Cape Town, drought has resulted in the need to rethink water usage. Recycling and reusing water is a matter of survival, and the new phenomenon of water theft and water smuggling has become part of the struggle. For example using water in unregulated ways from boreholes and springs became illegal from February 2018. Regulation will remain a challenge for the province, for example, theft of water from a local government reservoir was identified when a water truck was seen at an unusual time departing from the reservoir in Mogale. Apparently, this illegal smuggling had been operating for a few weeks until it was discovered by a councillor who noticed the irregularity and stopped the driver.[24]

The donation of water to the city by some fruit farmers[25] has enabled Cape Town to push out the date when water would cease to flow from taps. The historical lessons of how to survive sustainably in the Cape need to be revisited along with the latest research on integrated sustainable living approaches (Pauli 2010) and supporting the commons (Bollier and Helfrich 2012) and by learning from Indigenous first nations.

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[20] Purvis, K. 2016 https://www.theguardian.com/cities/2016/jul/29/where-world-most-water-stressed-cities-drought The Middle East has more desalination plants than anywhere else. Whilst Los Angeles and California have experienced water stress and insecurity in 2014 and 2015, they continued to use water liberally and relied on dwindling underground water supplies, according to Purvis. North Africa, the horn of Africa and Southern Africa (particularly the western and eastern cape) is experiencing the worst droughts in recorded history.

[21] https://www.britannica.com/place/Benguela-Current

[22] http://learn.mindset.co.za/sites/default/files/resourcelib/emshare-show-note-asset/859_fdoc.pdf

[23] How will Day Zero work? Don't ask the City of Cape Town. Times Live, 20th January, 2018

[24] https://m.news24.com/SouthAfrica/News/tanker-company-says-it-was-duped-in-water-smuggling-scam-20180202

[25] Some farmers were willing to share water with the residents of Cape Town as an act of generosity as their personal dams were full.

The National Water Act ([1998](#)) stresses that bulk water supply is a national government function, but the Department of Water Affairs and Forestry[26] stresses in the Preface of a document detailing responsibilities for local government that:

> Since 2002 Local Government has the responsibility to implement water supply and sanitation services and the Department of Water Affairs and Forestry now acts as sector leader, by regulating, monitoring and supporting to ensure effective service provision.

According to the constitution of South Africa, it is the right of all South Africans to receive water.

The Department of Water Affairs and Forestry[27] (under the Minister of Water Affairs and Forestry):

> sets the national objectives for protecting the resources in the national water resources strategy. Each catchment management agency is then responsible for protecting the catchments and aquifers within their water management areas in accordance with the national water resource strategy.

The United Nations report in January 2018 stresses that we are fast approaching critical levels in temperature and cites the Secretary-General's Special Representative for Disaster Risk Reduction, Robert Glasser:

> A three-year streak of record hot years, each above 1° Celsius, combined with record-breaking economic losses from disasters in 2017 should tell us all that we are facing an existential threat to the planet which requires a drastic response… We are getting dangerously close to the limit of the 2°C temperature rise set out in the Paris Agreement and the desired goal of 1.5° will be even more difficult to maintain under present levels of greenhouse gas emissions," he underscored.[28]

Environmental changes at a global level are associated with increased risk of drought and consequent food and water insecurity as detailed by the UN Habitat report ([2016](#)). These events are more than one off droughts and as such pose an 'existential risk' (Bostrom [2011](#)). Unfortunately, water provision had been neglected in the Western Cape. The Democratic Alliance was voted in by Capetonians, and the DA was held responsible for the lack of forward planning to cope with the increased immigration to the cape and the increase in tourism in the context of climate change.

At the time this chapter was written, water remains a political means to ensure that the DA take sole responsibility for the crisis, despite the boast that the Cape was one of the best run provinces. In Cape Town the Democratic Alliance won the vote. It was believed that Zuma had politicised his opportunity to block funding to the Cape by not signing the documentation to declare the Cape a disaster zone. The most marginal groups (the poor) are most likely to encounter water and food insecurity (Flyvbjerg [1998](#)). A highly urbanised, environmentally affected region of the

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[26] Department of Water Affairs and Forestry, Republic of South Africa. Water and Sanitation Business: The roles and responsibilities of local government and related institutions, dwa.gov.za

[27] Department of Water Affairs and Forestry, Republic of South Africa. Water and Sanitation Business: The roles and responsibilities of local government and related institutions, dwa.gov.za

[28] UN news 2018 'Near-record warm temperatures fuel deadly, costly weather events in 2017—UN. https://news.un.org/en/story/2018/01/1000721

Western Cape and Cape Town faces the cascading impact on the habitat across the continuum from domestic, liminal, agricultural and wild animal life (to draw on Donaldson and Kymlicka 2011). The loss of territory for wild life has led to contested habitat and threat to the survival of many species. Climate change has magnified the effects of displacement and loss for human, animal and plant life[29]:

> The Fynbos in the Western Cape Region of South Africa, which is experiencing a drought that has led to water shortages in Cape Town, could face localised extinctions of a third of its species, many of which are unique to that region.

Agency can and does play a vital role in reshaping the bleakest of analyses of South Africa's future. South Africa has defied the blood bath scenarios and can defy the 'shit storm' scenario (Bond 2018). Service delivery protests, state capture protests (Bond and Mottiar 2013) and fees must fall protests have resulted in the successful election of a new president of the ANC who has been installed with dignity whilst creating alliances that will enable those who have been left behind (particularly the unemployed young people) who will need to be given a stake in the increasingly divided cities.[30]

The poverty gap is widening in South Africa, according to an Oxfam report (2017).[31]

> According to Oxfam, in SA the richest 1% of the population has 42% of the total wealth.

In the latest UN Habitat report (2016:206) it is stressed that:

> South Africa Cape Town 2005 was listed as 0.67, South Africa Ekurhuleni (East Rand) as 2005 as 0.74, South Africa eThekwini (Durban) 2005 as 0.72, South Africa Johannesburg 2005 as 0.75.

Cape Town is slightly less divided than other cities according to the UN Habitat figures for 2011 cited a year later by Zille (2012). However, the statistics used are for 2005, and they were used in both the UN Habitat Report for 2016 and the same earlier one to which Zille was referring. I repeat and quote in full so that the point can be made clearly:

> All SA cities show a high level of inequality. The measure the UN-Habitat uses is the Gini coefficient, a measure of the inequality of income. A Gini coefficient of 0 means total income equality – where everyone has the same income. A Gini coefficient of 1 means maximum inequality. One person has it all

She then goes on to cite the report directly in detail, which I check:

> A rating of 0.4 is considered the international alert line for high inequality. In South Africa, Johannesburg and East London have an 0.75 rating, the East Rand and Bloemfontein 0.74,

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[29] Climate change risk for half of plant and animal species in biodiversity hotspots, 13th March, 2018 https://www.sciencedaily.com/releases/2018/03/180313225505.htm

[30] UN-Habitat Executive-Director Joan Clos discusses how cities are affected by climate change – and what they are doing to lower carbon emissions. Follow our COP23 coverage: un.org/sustainable development/COP23.

[31] https://www.businesslive.co.za/bd/national/2017-01-16-sas-rich-poor-gap-is-far-worse-than-feared-says-oxfam-inequality-report/

> Pietermaritzburg 0.73, Pretoria, Port Elizabeth and Durban carry a 0.72 rating, while Cape Town has a rating of 0.67. This clearly shows high levels of inequality in Cape Town, but still makes it lower than other cities.[32]

Thus, although Cape Town is not the most unequal in South Africa, it is certainly one of the world's most unequal cities.

The transfer of dammed water to the metropolitan area has staved off Day Zero, but the drought impacts reliance on springs and may place increasing pressure on animals. Dirk (January 2017) stresses in her article that whilst bottled water has been donated through volunteers to the Western Cape, the impact on animals has not been thought through. She makes a plea for more water and feed for animals and highlights how the drought has already affected farm animals in other areas. She stresses[33]:

> Farmers in Namaqualand and Kalahari have had to feed potatoes to their cattle to keep them alive. Other farmers have had to kill their animals because they cannot afford to feed them. "It is heartbreaking to see a calf look for shade in which to die because its mother has starved to death," said Gerber. … 2000 bales of hay have been collected and transported to feed these starving animals.

Another problem that has not been thought through (not mentioned in her paper) is the way in which the many plastic bottles are being used to rush water to the cape. The cascading effects of heavy use of carbon resulting in climate change (Stiglitz et al. 2010) are now leading to reliance on plastic (carbon based and non-renewable forms) to provide water in an emergency that could be staved off by using available water more carefully.

The impact of the drought on all quality of life of sentient beings (Nussbaum 2006) has been underestimated, and the last *Frontiers of Justice* needs to take into account policies to mitigate and adapt to climate change in the Western Cape.[34] Highly urbanised regions in disaster-prone regions face convergent challenges and are at risk unless strategies are explored with service users and all levels of government to find better pathways to social and environmental justice for human and animal life and their shared habitat. The systemically interconnected nature of social, economic and environmental danger and risks are explored elsewhere (McIntyre-Mills 2017).

I draw on Giddens (1990: 71) in terms of the crisis of trust and rising risk and discuss the water crisis in the city of Cape Town as a symptom of convergent

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[32] Third Dec 2012 Zille says the Cape Town rich-poor divide is narrowest in SA https://africacheck.org/reports/zille-right-to-say-the-cape-town-richpoor-gap-is-narrowest-in-sa/ These figures refer to 2011 figures but more recent reports from UN Habitat confirm these statistics.

[33] https://www.iol.co.za/capetimes/news/help-rush-water-animal-feed-to-drought-areas-1968817

[34] For example, Jejani (2017) stressed that primates in the Western Cape are encroaching onto domestic properties as they are displaced from their own spaces. A plea is made to give them time before they are 'euthanised' if they are moved away and then return. However, the problem is incorrectly represented merely as a need for more time to get used to being displaced. Instead they need secure territory of their own, and they need safe passageways to reach the springs from where they seek water. Another indicator of displacement and loss that is commonly observed in the Western Cape is that large numbers of Guinea fowl are now seeking water in suburban gardens.

challenges associated with the way in which the nation state interacts with the global economy, in line with the international division of labour and in the interests of military power and capability (see Chaps. 5 and 18). Neoliberal economics has played out in South Africa in ways that have resulted in protests against the lack of education, services and basic infrastructure, but although some protests have been made by social movements (Bond 2012) in the buildup to the climate change conference in Durban in 2011, a carbon-based, anthropocentric approach to governance has prevailed to date.

The carbon economy has been supported by a World Bank loan to set up the Medupi coalmine, despite protests. Bond stresses that government has seen fit to support cap and trade measures to offset dirty coal but that this approach to carbon trading and as yet untried ways to successfully reduce the impact of coal burning emissions are problematic. Coal mining in areas where it is costly to mine has resulted in passing on costs to consumers. In addition, the lack of forward planning in providing an energy market for rapidly urbanising cities resulted in blackouts in Cape Town and Gauteng. This resulted in delaying the decision to build a desalination plant capable of supporting the needs of Capetonians. The problem is that with the convergence of social, economic and environmental challenges, governments such as the provincial government of the Western Cape were unable to afford desalination plant. At the time when some of the climate change experts advised on a desalination plant, Cape Town (like the rest of South Africa) was experiencing irregular power supply. This was partly because of the mismanagement of Eskom and allegations of corruption[35] that are part of the forthcoming inquiry into state capture that has been initiated prior to Ramaphosa's becoming president in February 2018. Some reports make it clear that the decision not to pursue desalination was because of the associated costs, whilst other reports stress that advisers considered desalination a risk to the environment. The then leader of the DA Helen Zille stressed that the refusal to recognise the Cape as a disaster zone at the national level resulted in a lack of funding to address desalination soon enough. Another argument is that climate change has 'come sooner' than anticipated, according to a News 24 report.[36]

Whereas Bond (2018) predicted a 'shit storm' as Cape Town faces the worst drought in over 300 years. During the last, the culture shift to conserve water has been successfully driven by a combination of governance changes, such as a Water App that maps the water usage of households transparently across all the suburbs of Cape Town and acts of generosity by farmers donating water to the city of Cape Town as a voluntary donation as well as mass movement to donate water to Cape Town. Whilst Bond's analysis of the causes of climate change and the politics of climate justice is apt (Bond 2012) he is perhaps too pessimistic about the capabilities of people to adapt.

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[35] https://www.timeslive.co.za/news/2017-11-18-bongo-tried-to-bribe-parliament-evidence-leader-of-eskom-state-capture-inquiry/
[36] https://www.news24.com/Green/News/for-global-water-crisis-climate-may-be-the-last-straw-20180213

In fact, Capetonians showed more resilience and a greater capacity for adaptation than he expected. The response by Capetonians to the call for change has resulted in successfully pushing back Day Zero to the onset of the rainy season. Whether this will be sufficient remains to be seen. It is an example of effort made by a city residents acting together across the diverse suburbs and the surrounding farming regions. It will require the active support of all levels of government, transparent governance of resources and ongoing mobilisation from below.[37]

Despite the legacy of apartheid, the potential to do things differently needs to be documented as an example of community spirit, albeit driven by a shared fear of the consequences of not doing the right thing and by the water usage map that made water usage transparent. The provincial government fined those using more than the allocated amount.

The point that I made in *Planetary Passport* (McIntyre-Mills 2017) is that ecological citizenship is possible. This example shows how resource usage can change because of shared will and a form of governance that enables a fair distribution of resources for all. Bond stressed in a Real News interview[38] that Cape Town is one of the most climate-affected cities in the world and one of the most unequal and cited UN Habitat. His analysis of global capitalism and the inadequate role of BRICS (Brazil, Russia, India, China and, most recently, South Africa) as a network of the global south to stand against the developed world – provides a necessary reminder that change needs to occur from below through social movements, in order to hold the state and the market to account.[39] The cascading and interrelated effects of climate change can be detailed as follows:

- Firstly, the problem of water has *not* been explicitly linked as a disaster of national scale requiring a change in policy direction to mitigate and adapt to climate change – although it is acknowledged to be worst drought for more than 300 years, it is only recently been acknowledged as part of a pattern of climate change that will affect the Western Cape for the foreseeable future (UN Habitat 2016).
- Secondly, desalination was considered with caution due to possible environmental risks associated with raised levels of salinity.

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[37]Avaaz has called people to support Capetonians and to depoliticise the attitude of the current leader of the ANC. Avaaz has run a campaign to raise awareness and to ask people to declare the Cape a disaster zone:

Day Zero is getting closer and closer—and it will affect every one of us. We all want to help, but real action is being held hostage by political bickering. Together we can still stop the worst by getting Zuma to declare a national disaster—but to break the political deadlock, it has to come from the people, every single one of us. So I've just joined this campaign, I hope you will, to https://secure.avaaz.org/campaign/en/day_zero_11/?knPhtab.The Minister of Water and Sanitation at national level will need the support of Ramaphosa to find funding to support infrastructure development. Ramaphosa has stressed at Davos that climate change is a reality that will need to be addressed in the Western and Eastern Cape.

[38] https://m.youtube.com/watch?v=SLXByr1ax18 on January 18th Real News.

[39] https://theconversation.com/brics-needs-a-new-approach-if-its-going-to-foster-a-more-equitable-global-order-84229

- Thirdly, desalination was considered to be too expensive as a result of rising energy costs and the rolling cuts to power that were experienced, called 'load spreading', for much of 2014.

The third way approach of Anthony Giddens (2000) has been shown to be lacking as social democracies need to keep the relationships between the state and market transparent through ongoing democratic engagement, in order to avoid the most cynical ploys such as carbon trading, carbon sequestration that shifts the burden from developed to developing nations, from the powerful lobbyists to the powerless. Those without access to a strong voice in the market or the state need to rely on using civil society to exert pressure on the state. This requires a careful consideration of the role of law, which can be used progressively to protect the commons or retrogressively in ways that protect what Bond (2012: 54) calls 'ecological modernisation'.

In Australia, the limitations of Environmental Protection and Biodiversity Conservation Act 1999 are evident in managing cascading risks associated with the impact of coal industry on climate change, such as warming temperatures and Queensland's Coral reefs. The pro-business as usual lobbying by Kelly (2018)[40] revealed the inadequacy of the EPA to protect the environment. Kelly wished to highlight the hypocrisy of mainstream political opposition—in this case labour—but without acknowledging the extensive criticism of the mine and the hypocrisy of job creation. However, the point that his article also reveals is that the current law (supposedly to protect the environment) does not sufficiently protect the commons because it is pro-market and controlled by neoliberal market economics.

The silencing of the poorest of the poor has resulted in what Bond refers to in this same interview by referring to the way Trump made reference to a developing nation as a 'shit hole' and how political fracas are described as 'shit storm', to use the impolite terminology that is bandied around quite openly in the mainstream media.

When the marginalised are unable to voice their concerns and they become desperate, they will use whatever means possible to symbolise their sense of outrage. In South Africa, the use of sanitation as a symbol of disgust at authority was used by protestors on the University of Cape Town Campus. It was also used recently on the cape flats by residents who felt it was their only way to protest their fears about being without water.

Boulding stressed that transformation requires the highest level of response as the level of complexity required for transforming society increases as we move from inorganic to organic life, to animal and human life.

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[40] 'Under the Environmental Protection and Biodiversity Conservation Act 1999 there are precisely defined circumstances that govern suspension or revocation of federal environmental approval. Opposition environmental spokesman Tony Burke told ABC's (Australian Broadcasting Commission) Patricia Karvelas…that under the law, as ministers "you must never prejudge a decision". If so, you risk legal action from the aggrieved company…' (Kelly 2018: 16-16. Kelly, P. Shorten showed up as an opportunist too smart by half: Adani a test case for coal, climate change and foreign investment. Inquirer. Weekend Australian. 15–16. March3rd – 4th.

Humanity has shaped the environment in ways that were previously inconceivable. As detailed elsewhere in *Planetary Passport*, *Systemic Ethics* and *Transformation from Wall Street to Wellbeing* (McIntyre-Mills et al. 2010), 'anthropocentrism' refers to a human-centred approach that disregards other living systems.[41] The key concepts for a transformative educational approach need to be based on non-anthropocentricism. This means focusing on ways to protect the habitat of all living systems. The approach takes the next important step in the research agenda, to link the notion of relationships across humans, animals and the land as a source of Indigenous and non-Indigenous wellbeing and the broader societal need for environmental protection and effective ecosystem management of domestic, liminal and so-called wild or natural habitat (Donaldson and Kymlicka 2011). In the volumes on which this paper is based, it is stressed that we have created the Anthropocene through intervening in nature, and we need to restore and regenerate the living system of which we are a strand. The challenge for governing the Anthropocene ethically and wholesomely is one of moving away from disciplinary and functional differentiation to support living ethically in ways that redress the worst aspects of modernisation.

When human security is threatened[42] by social, economic and environmental pressure, social unrest is inevitable.[43]

The point I am making is that the UN Sustainable Living Goals can only be achieved through transformative approaches, such as the ideas we have been discussing. It needs big game changing pilots with government and business and through emphasising so-called mode 2-type research (Gibbons et al. 1994) within and beyond the boundaries of the nation state to address the 'consequences of modernity' (Giddens 1990). Working with international organisations can help to enable us to join up the dots (Zapp 2018), and by working across nations and

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[41] https://archive.org/details/VN860553 reconsidering boundaries and what constitutes knowledge. https://archive.org/details/VN860546 ethics and design.
https://archive.org/details/VN860542 topics critical systemic thinking and practice.
https://archive.org/details/VN860537/VN860535.MP3 governance across boundaries.
https://archive.org/details/VN860540 designing a response to address an area of concern.
https://archive.org/details/VN860555 wicked problems.
https://archive.org/details/VN860538 non-anthropocentric approaches.
https://archive.org/details/VN860534/VN860533.MP3 social and environmental justice.

[42] J.P. Smith answers Day Zero questions: 'it's going to be really unpleasant'. News 24 At a personal level people have changed the way that they choose to live their lives by using much less water. J.P Smith, 'Safety and Security mayoral committee member stresses that Capetonians will have to save water and reduce usage to less than 50 litres per day or queue:
  'It would be catastrophic if we end up having to collect water at pods'.

[43] I explained this point at the Flinders symposium Yogyakarta. I also explained these points to the Flinders Chancellor over lunch and shared how in Solo (at a conference on participatory democracy, politics and digital engagement) where I gave an invited contribution a few weeks prior to the Flinders Symposium at Gadjamadah. In Solo I participated in plenary panel for a politics conference (forthcoming citation in 'Getting Lost in the City' and stressed the potential for radicalisation). During the break, a fellow panelist explained he was en route to hear more about radicalisation from Abu, Bakar Bashir with whom he was having a meal. More money and effort are spent on radicalisation than positive vocational education and training.

across organisations, we can strive to ensure that the rhetoric of the 2030 Agenda is addressed.

The neoliberal agenda has pushed developing countries to the brink (Bond and Mottiar 2013). The level of human insecurity and distrust was at its height when this article was written. Nevertheless in the agency shown by civil society movements responses (despite the political stand offs) set an agenda that needs to be met by innovative economic transformations that are not in line with the same old paradigm that has been emulated by the BRICS network (Bond and Garcia 2015; Bradlow 2017).

In these references, it is stressed that BRICS has done little to address sustainability and has instead repeated the same old messages.

This requires simple systems that support representation for enhanced equity, accountability to enhance fairness and transparency and regeneration for the restoration of the commons and the assumptions and values that support it.

Water management systems that rely on performance management by experts and that place a monetary value on the fabric of life do not protect the commons. They commodify it.[44]

Thus, the approach I have suggested is to enable local people to think in terms of being the change through being rewarded for living differently. So instead of pricing nature as a commodity, those who live virtuously and well through measuring their personal consumption and demonstrating that they care will be given recognition points that can be exchanged for other services within the local community. By valuing certain kinds of knowledge at the expense of others, human beings have created a new age, namely, 'the Anthropocene', characterised by rapid urbanisation and unsustainable development.

Regional Case Study

A rapid review case study of Alam Endah is detailed in Volume 2 that demonstrates low rates of outmigration as a result of community engagement in sustainable living and regenerative activities. The potential for women to be further empowered through enhancing their representation and accountability is explored.

The meaning of Alam Endah, the name of the village, is 'natural beauty', and most of the participants in the focus group and interviews stressed how much the village, nestled on the side of the mountains, meant to the residents. Nearby there are tourist attractions which provide a commercial outlet for the enterprise endeavours of the village community. First, there is the volcano named *Kawah Putih* (White Crater) and is regarded with awe by the locals because when birds flew over,

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[44] Molinos-Senate, M., Maziotis, A., Sala –Garrido, R. (2017). Assessing the productivity change of water companies in England and Wales: a dynamic metafrontier approach. *Journal of Environmental Management 197*, 1–9.

they dropped from the sky because of the sulphur fumes. Nevertheless, the White Crater has not erupted in 200 years and is a very popular location to visit for local eco-tourists, whilst the volcanic soil has made the entire region a productive food basket. Second is the deer sanctuary which is visited regularly by busloads of tourists from Bandung, thanks to the new road built by the Jakowi government now making the area a popular weekend retreat. The mountain on which the park rests is called *Patuha* Mountain or 'Grandfather Mountain' and is regarded as an important spiritual presence protecting the area.

Whereas in Cianjur, a contrasting case study demonstrates low levels of sustainable businesses and high rates of outmigration resulting in higher risks of trafficking for women and young people. Instead of seeing the world through the lens of property, the social democratic argument makes a case for enabling all members of the community to live sustainably and well through regeneration of the environment on which they depend.

The case highlights the way in which a West Javan village succeeds in creating job opportunities in line with the recent policy initiative of President Jokowi which states that each village should develop into an enterprise. The business council, largely patriarchal, and the success of the enterprise are underwritten by the voluntary work of women and young people organised through the local *pesantren*.[45] Here we detail power dynamics and the important enabling role of the pesantren in the survival strategies of the local community. The disadvantage generated by the local patriarchal and hierarchical social structure is also explored. The chapter analyses the findings from research conducted in West Java as part of transformative research led by the following: Centre for Decentralization and Participatory Development Research, Universitas Padjadjaran (Unpad) led by Widianingsih located in Bandung, West Java, in collaboration with Flinders University (Resilience Institute, Humanities and Social Sciences, Business Government and Law) located in South Australia. The universities in turn collaborate with the Indonesian diaspora. The diaspora network is closely supported by Pak Rudolf Wirawan of Wirasoft (who in turn collaborates with IBM). We use transformative mixed methods praxis to address the problem of land loss, urbanisation and vulnerability. The focus on wicked problems addresses themes raised by the Mixed Methods International Research Association task force report as reported by Mertens et al. (2013). The joint paper explores examples of how research can support communities to address the risks associated with human trafficking in an ecologically rich region. Social, economic and environmental resilience strategies around commercial plantations, communal and household gardens are explored in Cibodas, Cianjur and Alam Endah. Examples of productive and reproductive labour, double and triple workload, decision-making, value chain challenges and responses through gender mainstreaming and community empowerment are discussed. We use qualitative focus groups with key stakeholders, in depth interviews, ethnographic insights of the leader of Indonesian women's empowerment (PKK) and the analysis of publically

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[45] A pesantren is a secondary level Islamic boarding school.

available statistical data. This informs improved policy development as well as offering suggestions for moving towards the enhancement of governance opportunities for women including greater social inclusion in key decision-making roles.

The entrepreneurial endeavours of Alam Endah arose out of the 2014 presidential decree, which required all villages to establish local government-sponsored economic activities owned and run by the local authority for the benefit of the community. This presented a challenge to all villages but most especially those with limited natural resources. This was not a problem for the village of Alam Endah which rose to the challenge establishing many local enterprises and developed community infrastructure through successful fundraising. In line with the presidential decree, 140/KEP 10 DESA the head of the village council appointed a management committee to oversee the enterprise. Fundraising within the village over a few months helped to fund the building of a new road and a large local mosque, which cost 500 million rupiah. Alam Endah is based in Rancabali Subdistrict, Bandung District, West Java Province. It is one of the most resource-rich agricultural areas due to its volcanic soil and provides us with a case study of successful rural development. Administratively, the village is divided into 112 neighbourhood groups and 30 villages consisting of 6887 households of 22,000 people in an area which covers 505.6 hectares. Alam Endah relies on agriculture with 95% of the inhabitants working as farmers. Apart from the agriculture sector, ecotourism can be supported further through visiting places of interests such as the tea and coffee plantations, the waterfalls, hot springs and strawberry farms. This case study demonstrates that it is possible to develop local agricultural industry not centred on rice production such as the production of berries, a range of vegetables, coffee, tea and bamboo.[46] Whilst in the past there was an emphasis on bamboo production, the head of the village informed us that the bamboo gardens also included the production of coffee to provide biodiversity. Moreover, the expansion of local enterprise has led to a heavy dependence on active productive inputs and organisation of women increasing earning potential and self-employment in an environment within which women's agricultural labour on the family farm goes unrecognised and unpaid. This has held female labour within the rural community in situations such as land loss, and declining economic opportunities has elsewhere drive young women especially into the cities to seek paid employment and placed them in circumstances vulnerable to trafficking and exploitation. The research is based on a case facilitated by Dr. IW, a PhD graduate of Flinders University who also runs her own participatory engagement institute as part of Padjadjaran University. The rapid field work appraisal, on which this article is based, was built on qualitative focus groups, observation, interviews and the analysis of secondary quantitative data. The field

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[46] In 2013 in Indonesia, there are 72 million 944 thousand villages, and there are 32,000 villages in the eastern part of Indonesia. Of these 43% of the poor villages are in eastern Indonesia have limited support. This is one of the reasons for introducing the Ministry for Village and Less Developed regions. In 2013, 63% of the poorest of the poor are farmers, and they make up 28.6 million farmers. Another point raised by Ida is that food insecurity in many parts of Indonesia is linked with the inability to grow rice.

visit conducted on 17 December 2018 is an extension of a series of visits linked with the UNPAD centre for decentralisation and participatory development research for a project called 'Living Virtuously and Well': mitigation and adaptation to climate change detailed in the next chapter. It also extends the pilot detailed in McIntyre-Mills (2017).

Women clearly had little participation in decision-making in the village but are responsible for managing the integrated service force. As such, they managed a system of integrated preventative healthcare, which includes waste management. Access to the clinic was enabled through a points system linked to the management of recycling. Whereby handing over household waste for recycling awarded points to the women on a visible chart on display in the clinic. The clinic provides a free service to all women who bring recycled waste to the clinic. In this system they would also get green, yellow or red dots on their clinic card to show how well they integrate public health into their service delivery. The individual and public health commitment is thus very well represented in this example and offered clear incentives to all members of the community. Ironically, although the members of the committee stressed the importance and success of recycling the overflow of rubbish did not go unnoticed. Behind the scenes the lack of processing of recyclable materials continued as was evident in the clinic kitchen behind the meeting room.

The participants in the focus group discussions [FGD] on 18 December, 2017, emphasised that they valued tradition and the strong community links with Elam Endhah and that they 'love the area and the beautiful land'. They stressed that although some families had sold their land, the guaranteed high prices had enabled them to buy much larger plots of land, albeit in less strategic places, to expand agricultural production and be more productive farmers. Overall, they stressed that they were happy with the management by the enterprise committee. It was unlikely that they would offer an alternative opinion given the manager of the village committee was part of the FGD.

They stressed that they liked getting higher prices for their goods as a result of the organisation, but they did not like not having the control of all their activities without having much of a say or 'influence' over decisions. They stressed that their main concern was that outsiders with bigger business interests were coming into the area.

The *pesantren* provides training for all the children of the village free of charge. Primary and secondary education is free for the first 9 years. After that, they are required to pay for higher education.

The potential for building vocational educational training as an extension of the *pesantren* is clearly a possibility with the support of the Minister of Education through UIN. Young people in the community are fully engaged in helping the family businesses as well as community projects, and as such they are responsible for sorting rubbish and helping with the packaging of farm produce. They spend much of their time engaged in community activities associated with the mosque, and training is at present undertaken by the *pesantren* which provides free education.

Young people undertake the design of the packaging and labels for local products and produce which they also make.

Clearly, the potential exists to remunerate work within the co-operatives, which is presently undertaken by volunteers the majority of whom are women and children. This would acknowledge and reward their contribution financially or through a point system for their work in the community. Moreover, this would facilitate monitoring from below with respect to social, economic and environmental accounting and accountability.

At the moment, the social capital contribution of young people is very high, but if they move they lose it. They need to be able to have some share that recognises the volunteering. In 2015 the Bandung District introduced a new program called 'reduce, reuse and recycle project'. By 2020 all the waste will have a value added as energy or another form.

Local government training is provided to manage waste and not to pollute the river. The village government has land, and the young people are asked to help the company every Friday—they are given a small contribution of about 2 cents to take the rubbish to a temporary waste processing centre. The youth group collects the rubbish. They employ six people to sort the rubbish into organic and inorganic waste for compost. They collect 12–17 tons of waste every week, and every 3 months they make 3 tons of organic fertiliser. However, it does not last long because of the high demand of farmers.

The downside of the model is the high dependency on unpaid productive female labour in the home, on the farms and in the community whereby women at times work 24/7 even in the opinion of the men. They plant the crops, weed, spend time selling in the kiosks or shops, they return home to work in their home gardens and they do most of the household chores. Women are virtually solely responsible for fund raising. Examples of fund raising capacity were given such as the community of a nearby village-raised money for a new mosque in matter of weeks demonstrating the strong social capital within the village communities.

In all practical respects, the women of the village have the knowledge required to identify things such as needs, difficulties and measures for cooperation and division of labour especially among women. This gives a 'ghosted' influential position which serves as a pathway to empowerment within a highly patriarchal traditional set of gender relations demarcated and manifested within village politics.

Once people are part of a co-op they are at the mercy of the leadership. If they are wise and fair, then everyone prospers. If not, then they risk being exploited. As farmers they need to be able to control and own their personal source of income, namely, land. The diversification of agricultural activities and the stabilisation of the environment and landscape were important to this end. Alam Endah certainly seems a model village with respect to retaining if not growing its population rather than losing it to urbanisation and income-generating opportunities in the city.

The risk of being bought out by big business and then losing land is a major concern. This occurred in a nearby area whereby the local government-owned tea

planation was taken over by a Chinese-owned business. The tea pickers who had worked for many generations on the plantation were then rendered both unemployed and landless. The tea pickers and their families lost access to their place of work along with their personal plots that needed to be accessed via the tea plantation. Previous generations had worked for the same tea plantation their entire working life and on retirement received a grant that enabled them to buy a plot of land.

Moreover, these families also lost access to the lake nearby and the source of income they generated by rowing boats for tourists to access the beauty spots. The local waterfall was also declared to be on private property, whereas previously it was accessible by way of the government-owned tea plantation.

The political decision to sell the land was clearly made at a senior level without informing people of their rights. All landless people in Indonesia are entitled to land under a scheme announced by President Jakowi, but the tea pickers were unaware of their rights. The new neoliberal economics of short-term contracts in a 'for profit' private business was however imposed with the full knowledge of someone senior in West Java government.

An Indonesian academic, who is part of our team and indigenous to the region, had at that time tried to find members of the dispossessed families in order to inform them of their rights, but by then many had already moved to the city in search of employment. According to Dr. Ida Widianingsih (Pers. Comm, 2017:

> This is a very 'political dance'. An Indonesian state company ran the company and it was possibly going bankrupt. They decided to sell land to the investor…This is unusual to sell a state owned enterprise to a private owner. They turned it into a tourism spot and the pickers were the victims of the decision. In the past retirees received 80 million as a pension so that the pickers could buy their own farm and survive. These pickers left with nothing and the new owners imposed new contracts on the people who work there. The pickers and their families had lived there since the 18th century. The new business was imposed on the locals who had voted for the Golkar and the tea company. And now the present generation suffers. They had worked as pickers for many generations and all their skills and devotion had been to the tea plantation and now they are destitute as a result of the transition. How did they manage to go bankrupt? It is an excellent business. People suffer and no longer can afford to retire in the area. The pickers earned 50c per kilo per day. This is about 3-5 Australian dollars per day. They did not pay for housing or for schooling. When they reached the pension age they used to receive a payout. Normally they used to stay on the land or nearby.

Displacement and loss could be averted if more emphasis was placed on educating rural and urban residents of their rights in terms of the Indonesian constitution and current policy. This will also help to address the concerns raised in the next chapter where young people are at risk of trafficking when they face land loss and destitution and the process of proletarianisation renders them vulnerable to predatory 'job offers' in factories or as domestic workers where the conditions of employment are not closely governed and can be a front for trafficking in some instances. Land loss does not need to be inevitable if people are made aware of their rights to land as per the presidential decree.

Democracy and Governance for Resourcing the Commons: Towards Human Security

Globally women, children and vulnerable members of the population face complex health, housing and social inclusion needs especially in disaster-prone areas (Anderson cites Figueres, 2017 in conversation[47]). The border protection mentality is becoming more prevalent globally, but human trafficking, disaster and climate change are transnational issues that require a big picture approach. This collection of papers could provide improved understanding of how to manage complex needs based on mixed methods (Hesse-Biber 2010; Mertens et al. 2013; Mertens 2016). It aims to critique governmentality (Foucault and Gordon 1980) and the existing governance context for UN Sustainable Development Goals through exploring frontiers (Rose 2005; Nussbaum 2006), discourses (Bacchi 2009) and scenarios of different policy and practice.

The links across greater equality and wellbeing and the prevention of global warming appears to involve 'limiting consumerism' and narrowing the gap in living standards between rich and poor (Wilkinson and Pickett 2009: 221). It is assumed that greater social and economic equality will provide the key to reducing the cultural pressure to consume at the expense of the majority in this generation and the next.

At the time of writing, the rationale for a new way of living is developed with participants in Africa and Indonesia, where risks associated with displacement and loss are explored in more depth. Resilience is defined as the adaptive capacity of the physical environment, of an individual or of a group. It includes factors such as the capacity of members of a community to act together creatively and to transform existing ways of life (Rose 2005; Shiva 2012) as well as the social, economic and environmental determinants of wellbeing.

According to Stiglitz et al. (2010) wellbeing spans '1. Material living standards (income, consumption and wealth), 2. Health, 3. Education, 4. Personal activities including work, 5. Political voice and governance, 6. Social connections and relationships, 7. Environment, 8. Insecurity, of an economy as well as a physical nature'.

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[47]Women and children are particularly vulnerable to exploitation after natural disasters. Conceptually and methodologically research needs to focus at the intersection of ecological humanities, multispecies ethnography and by a critical reading of the sociology and anthropology of development (Sen 2000, 2005, Nussbaum 2011). *Transformation from Wall Street to Wellbeing* (McIntyre-Mills et al. 2014) stresses the importance of relationships across living systems (including sentient beings, non-sentient beings and our shared habitat on which we depend). This is elaborated clearly as follows: 'Let us try to think "economy" not as a unified system or a domain of being but as diverse processes and interrelations through which we (human and more than human) constitutes livelihoods. Gibson-Graham and Miller (2015:12 explain this in terms of living together as 'multi-species assemblages'. "Economy" (oikos-habitat; *nomo*s-negotiation of order) might then become a conceptual frame or theoretical entry point through which to explore the diverse specificities of livelihood creation by a population (members of the same species) or a community (multi-species assemblage)'. (Gibson-Graham and Miller 2015: 12)

This definition fits well with the ways in which both indigenous and non-indigenous populations connect with the biophysical environment and how critical systems thinkers and complexity theorists understand human interrelationships.

Accordingly, the theoretical underpinnings of the project are informed through combining Nussbaum's (2011) concepts on norms and rights with Stiglitz et al.'s (2010) on functioning as a multidimensional measure of wellbeing and resilience.

The research addresses environmental change and vulnerability to food and water insecurity (Cruz et al. 2009; Waters 2014). Instead of seeing the world through the lens of property, the social democratic argument makes a case for enabling all members of the community to live sustainably and well through regeneration of the environment on which they depend.

Conclusion

The paper explored some case studies of displacement and loss through asking questions about the implications of displacement of people, plants and animals in Cape Town and Bandung, two major cities with a shared colonial history, namely, the Dutch East India Company.

Social and Environmental Justice Supported by Value-Based Governance

Giddens (1990) discusses trust as part of the challenge for modernity. Trust in elected leaders is at a low ebb given the extent to which self-interests rather than the public good prevails. An understanding of the commons and the common good is greatly needed.

Unfortunately, trust has been eroded by big business from the era when companies operated for profit and in the name of the nation state. The lack of insight into the interconnected context of policy formation and the extent to which politics should strategically support policies that will protect human security is part of the problem. Ramaphosa delivered the address and used the symbolism of past leaders to try to invoke the time when ANC was seen as a beacon of hope to the dispossessed in which he stressed:

> We should put behind us the era of diminishing trust in public institutions and weakened confidence in leaders. We should put all the negativity that has dogged our country behind us …

At this point, he is referring to the problems associated with the so-called Zuma era, which was characterised as an era of state capture. He then returns to the theme of the leaders who stood for justice and asks for a renewal of the vision of the founder members:

It is a new dawn that is inspired by our collective memory of Nelson Mandela and the changes that are unfolding. As we rid our minds of all negativity, we should reaffirm our belief that South Africa belongs to all who live in it. For though we are a diverse people, we are one nation. There are 57 million of us, each with different histories, languages, cultures, experiences, views and interests. Yet we are bound together by a common destiny. For this, we owe much to our forbearers – people like Pixley ka Seme, Charlotte Maxeke and Chief Albert Luthuli – who understood the necessity of the unity and harmony of all the people of this great land. We are a nation at one.

The symbolism of past heroes of resistance are held up to encourage South Africans to have trust in the future of the ANC. Ramaphosa also stresses the importance of honouring diversity, and in this sense, he follows the 'rainbow nation symbolism' of his mentor, Mandela. Ramaphosa then went on to stress the importance of practical engagement to address the problems associated with the current education system that does not provide enough places for vocational training linked with immediate employment opportunities:

Next month, we will launch the Youth Employment Service initiative, which will place unemployed youth in paid internships in companies across the economy. Together with our partners in business, we have agreed to create a million such internships in the next three years.

He then goes on to stress the importance of listening to their voices:

If we are to respond effectively to the needs of youth, it is essential that young people articulate their views and are able to engage with government at the highest level. I will therefore be establishing a Youth Working Group that is representative of all young South Africans to ensure that our policies and programmes advance their interests.

Trust, Politics and Policy Based on Interconnected Knowledge

The need to address sustainable development requires ensuring that those who are displaced and disposed have access to land. Food security is one of the aspects on which he focused. Much of the commentating on News 24 is by white South Africans. The context of apartheid history is never far away (but goes unacknowledged) as a vital aspect of the current crisis. The DA have been associated with the old apartheid era. It has been called part of the problem along with 'white monopoly capitalism'.

The characterisation of capitalism in racial terms is problematic, and a result of the lack of real transformation in the lives of many South Africans as stressed by Alexander (2010) in his analysis of the protests linked with the lack of service delivery.

But these political issues cannot escape the fact that the colonial past is one shared by both the British and the Dutch as stressed by Adam Smith (see reference).[48]

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[48] http://www.globalpolicyjournal.com/blog/06/02/2018/bitterness-adam-smith

The announcement that the NEC of the ANZ asked Zuma to step down was made by the ANC secretary, Ace Magashule.[49] Clearly, the invitation couched in the language of political brinkmanship underlines the importance of a voluntary resignation and a face-saving opportunity as it was stressed that Zuma needed to step down in the interests of the party. Any allegations of corruption over Nkandla or the allegations of State Capture were left out of the request.

The language of 'monopoly capitalism'[50] was used by Zuma in his response to the request that he 'step down'.

The request for his resignation has already been tabled by the Economic Freedom Fighters (EFF), the party of ousted Julius Malema who was once a youth leader in the ANC. The need for Zuma to step down with dignity was carefully handled by Ramaphosa who won the ANC presidency against the other candidate, Zuma's ex-wife, Nkosazana Dlamini-Zuma.[51]

Speculation that Zuma had asked to stay on for 3–6 months in order to secure the contested nuclear deal with Russia was also denied. The drought in South Africa has resulted in three provinces[52] being declared disaster zones.

Despite the declaration of Cape Town as a disaster zone by provincial government, Zuma refused to escalate the provincial level declaration to a national level. Without a declaration of national disaster, funds could not be released to assist the province. The management of water provision to address the worst drought in over 300 years requires co-operation across multiple levels of organisation at the local city government level, provincial level and national level.

The political dynamics of Helen Zille (DA Provincial leader) and Zuma are partly to blame for delays in responding to risks of climate change and a lack of trust between the ANC leader and the DA provincial leader.

State capture is the subject of an official inquiry into the role of Zuma's relationship with the Guptas. The issues were raised by the Public Protector and advocate, Thuli Madonsela who bravely asked questions, despite threats to her safety. The current Minister of Security has broadened the terms of reference.[53] But a balance will need to be achieved to ensure that the focus is on the role of the state in relation to big business.

This is an example of how people can work together to address risks. They have faced a common risk through effort, and despite some outbreaks of violence, water points at springs have been self-managed, based on trust.

The spirit of Ubuntu has prevailed and hopefully helped to reduce the risks of a divided society.

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[49] https://www.news24.com/SouthAfrica/News/zuma-has-done-nothing-wrong-but-he-must-go-magashule-20180213

[50] https://www.news24.com/Video/SouthAfrica/News/zexit-goodbye-zuma-jacob-zuma-in-his-own-words-20180213

[51] https://qz.com/1159766/anc-conference-cyril-ramaphosa-wins-in-rebuke-of-jacob-zuma-south-africa-president/

[52] https://www.news24.com/SouthAfrica/News/drought-crisis-3-provinces-declared-national-disasters-20180213

[53] http://www.thenewage.co.za/widen-state-capture-probe-say-mps/

As a result of the action by civil society, farmers and civil society together with local and provincial government in Cape Town, they have managed to get people to become water warriors through a combination of factors:

- Reducing consumption to 50 litres a day per person (or less)—a digital water map—to show those who are meeting the water restrictions
- Water pricing and policing—to make people value the commodity
- Public education—save water now or queue for water when the taps run dry
- Public-spirited donations of water through 'gift of the givers', farmers donating their water to Cape Town

Reframing Knowledge Through Researching Relationships to Protect the Web of Life

The purpose of the paper is to deepen an understanding of the complex, interrelated factors underpinning decision-making and resource sharing, in order to respond to the UN Sustainable Development Goals. The Intergovernmental Panel on Climate Change (IPCC) formula suggests that the privileged urban lives of some could lead to 'existential risk' for people and the planet (Bostrom 2011) which is why it is necessary to enhance the governance and implementation of the UN Development Goals. The paper aims to ascertain if participatory engagement supports *the will* to manage the consumption of human and natural resources carefully – as opposed to denying that by making everyday voluntary changes, we can enhance stewardship and resilience (Dobson 2007; Dobson and Eckersley 2006; Held 2004). Recent work by Hay and Beaverstock (2016) illustrates that the gaps between rich and poor and the powerful and the powerless have become wider and wider. The greatest challenges are the consequences of inaction. This has implications for the way we live and the need to change our way of life through living sustainably. Representation, accountability and sustainability challenges need to be met through addressing consumption choices that are currently very unequal. If non-anthropocentric wellbeing, rather than the economic bottom line (Boulding 1966), needs to be the focus of our attention to achieve cultural transformation in consumption patterns, then we need to develop a deeper understanding of how the intangible aspects of perceived wellbeing can be understood, and we need to measure them in relation to the links across perceived wellbeing, sustainability and resilience (Stiglitz et al. 2010). The number of interrelated factors pertaining to the consumption of food, energy and water will be operationalised in terms of what people have, what they need and what they are prepared to add or discard, turning points for the better and worse barriers to address social, economic and environmental needs at a local and community level. Then indicators of wellbeing will be co-created with the Aboriginal and non-Aboriginal stakeholders. Their narratives are the basis for pathways to protect wellbeing stocks using a multivariate data analysis platform".[54]

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[54] https://www.news24.com/SouthAfrica/News/drought-crisis-3-provinces-declared-national-disasters-20180213

In his preface to the *Wealth of Nations*, Adam Smith (1776: 4) discusses the imbalance in development:

> some nations has given extraordinary encouragement to the industry of the country; that of others to the industry of towns. Scarce any nation has dealt equally and impartially with every sort of industry.

Adam Smith (1776: 24):

> It is not from the benevolence of the butcher the brewer, or the baker that we expect our dinner, but from their regard to their own interest. We address ourselves, not to their humanity, but to their self-love, and never talk to them of our own necessities, but of their advantages. Nobody but a beggar chooses to depend chiefly upon the benevolence of his fellow-citizens.

Enlightened self-interest in today's context would require rethinking the example and rethinking what interconnected cascade economics could look like needs to be confronted if we are to shrug off the old epistemic narratives and create a new approach.

Ways to protect our shared planet could focus on transforming current architectures of governance and economic systems through valuing living systems appropriately and avoiding the commodification of people, other animals and plants. The time and motion principles addressed by Adam Smith in the *Wealth of Nations* were the basis for factory organisation, the commodification of labour and the extraction of rent. Smith believed that if capitalism was applied in an ideal and organised way, then the profits would flow on to all. But the fatal flaw in his analysis was the failure to take into account the powerlessness of the workers and that the absolute power of the owners of capital has resulted in absolute corruption. Reframing the way in which the economic system operates requires ensuring that people own the means of production and that they are able to manage the supply chain in a way that prevents commodification and loss of representation and accountability.

The wicked nature of displacement, loss, unemployment and poverty as it affects multiple species living in cities and the regions on which they depend, the cascading effects of climate change can hopefully be limited through taking control of the production, consumption and distribution cycle, in order to minimise waste and to support the regeneration of living systems. By empowering local people to manage their own social, economic and environmental resources in resilient communities supported by ICT systems, the UN Sustainable Development Goals could become more than rhetoric (see Volume 2, Chap. 16 by Wirawan and McIntyre-Mills).

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Chapter 5
Food and the Home Front: New Guinea Villagers' Survival During the Pacific War

Christine Winter

Abstract In histories of the Pacific War, and its impact on Papua and New Guinea, war histories reconstruct and analyze battles and troop movements in great details. In contrast this chapter focuses on the actions and plights of villagers, using rare documents written by senior New Guinean men during and shortly after the war.

During the Pacific War, the strategically important yet confined area, the Huon Peninsula in New Guinea, was a contested space. A former German protectorate, administered by Australia as a C Mandate of the League of Nations, it was occupied by the Japanese in early 1942 and regained by the Allies in late 1943, early 1944. Members of all three nations that had claimed formal colonial control were present throughout these eventful 2 years—occupying Japanese, Australian coastwatchers operating behind enemy lines, and German missionaries—imposing on New Guineans for assistance and cooperation.

By bringing New Guinean experiences to the fore, this chapter is narrating localized histories that are more than simply small, local micro-histories. They are a fundamental change in outlook. The influential late Tongan intellectual, historian, and theorist Epeli Hau'ofa reconceptualized the Pacific as a "sea of islands," in which local identity is not dissolved but embedded in a shared Ocean. He argues a strategic and moral concept of Pacific-Oceanic identity and history as a process. Focusing on New Guinea villagers, this article intends to create grounded and localized histories as a first step in a bigger process of creating shared histories.

Keywords Pacific War · Japanese occupation · Operation cartwheel · New Guinea villagers · Civilian experiences · German Lutheran Mission Finschhafen

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Introduction

During the Pacific War, the strategically important yet confined area, the Huon Peninsula in New Guinea, was a borderland, a contested space not firmly controlled by Australians or Japanese. The impact of war, as the following chapter shows, varied depending on the specific location. But a broad chronology divides the Pacific War in the Huon Peninsular into several distinct periods. Initially, from the outbreak of WWII in September 1939 to the beginning of the Pacific War, life in the Huon Peninsula continued without much change, apart from the internment of the majority of German traders, planters, and missionaries by Australia. From January 1942, after the invasion of the region by Japanese troops, and the retreat of Australians, that also included a hasty evacuation of nearly all Europeans, the Peninsula saw the establishment of a Japanese occupation infrastructure, with posts and patrols along the coastline and—to a more limited degree—into the hinterland. During the following one and a half years, Allied aerial attacks continued in irregular intervals, and small reconnaissance groups remained behind enemy lines. From mid-1943 the Allied counteroffensive brought aerial bombing and intense fighting back to the Huon that continued for about half a year. Even after the Peninsula was firmly back under Australian control, individual Japanese stragglers—soldiers who had not surrendered—caused smaller skirmishes. The Huon Peninsula, like the rest of New Guinea, remained under Australian military occupation until October 1945.[1]

Complex relationships developed from 1942 to 1944 between New Guineans, occupying Japanese, Australian coastwatchers operating behind enemy lines, and a small number of remaining German missionaries, the latter a legacy of German colonial rule.[2] When in January 1942, Japanese troops occupied the Huon Peninsula, the local villagers experienced their third change of formal colonial rulers in the

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[1] For details see the official history of Australia's involvement in the Second World War, in particular volumes 4 and 6: Wigmore, Lionel Gage, The Japanese Thrust (Vol IV, 1st edition, 1957), and Dexter, David Saint Alban, The New Guinea Offensives (Vol VI, 1st edition, 1961). See John Coates, Bravery above blunder: the ninth Australian division at Finschhafen, Sattelberg, and Sio, Oxford University Press 1999. For a detailed map of the area, see National Library of Australia, Map 'Lae, New Guinea drawn and reproduced by L.H.Q. (Aust.) Cartographic Company 1942', [Bendigo, Vic.]: L.H.Q. (Aust.) Cartographic Company, 1942. Call number: MAP G8160s253. Online http://nla.gov.au/nla.obj-233136620/view

[2] Kanasa, Biama-Ura 1996: A Research Guide to Word War II, (UPNG); Gray, Geoffrey 2000, "The Coming of the War to the Territories: Forced Labour and Broken Promises," [online publication, Retrieved July 4, 2017, http://ajrp.awm.gov.au/ajrp/remember.nsf/]; Christine Winter, "Disloyalty at Sword-point: an Ongoing Conversation about Wartime New Guinea, 1939–1945," *Journal of Historical Biography*, Vol 16, Autumn 2014, pp. 202–222. For a bibliographic overview, see Hank Nelson, "Report on historical sources on Australia and Japan at war in Papua and New Guinea, 1942–45," research essay for the *Australia-Japan research project*, http://ajrp.awm.gov.au/ajrp/ajrp2.nsf/research-print/2F3B86921669C57E852565B000499E78, retrieved July 20, 2017. For accounts of the Japanese in New Guinea, see, for example, Georgina Fitzpatrick et al., *Australia's War Crimes Trials 1945–51,* Brill Nijhoff, Leiden & Boston 2016; see also Beatrix Trefalt 2003, *Japanese Army Stragglers and Memories of the War in Japan, 1950–1975*, Routledge Curzon, Abingdon, UK.

space of three decades. In fact, members of all three nations that had claimed formal colonial control were present throughout these eventful 2 years, imposing on New Guineans for assistance and cooperation.

The archival material available on the Huon Peninsula during the war is very extensive in Australian and American holdings and includes maps and aerial photographs, films of bombing raids, official war diaries, personal papers, and captured Japanese documents. Japanese material is thus split into public and privately held documents in Japan and in archives of ex-Allied nations. The records of interrogations of Japanese POWs fill shelves, and these files have recently been examined in several projects on war crime trials. Despite the war having been fought on their land, New Guineans are a shadowy presence on the margins of these materials: named and unnamed they smile into the cameras of the liberating Allied soldiers, are listed for bravery or treachery in the war diaries of the Australian military occupation force ANGAU, and are counted in great numbers as a voluntary and often compulsory labor force for both the Japanese and the Australians.

By focusing on the experiences of New Guinean villagers, this article aims to widen our historical understanding of the conflict by asking: what did it mean for civilians, that is, New Guinea villagers. For Papua New Guineans, Japanese, and Australians—and to a lesser degree Germans—the Pacific War is an intellectually and emotionally divisive but shared past, or what the Pacific historian Greg Dening termed "our mutual and our separate histories."[3] A solution to this in my view cannot be to have one "true" history, and one or more "wrong" histories, but to excavate and listen to the experiences and remembering of all involved. The influential late Tongan intellectual, historian, and theorist Epeli Hau'ofa, who grew up in Papua, and worked in PNG, Tonga, and Fiji, reconceptualized the Pacific as a "sea of islands," in which local identity is not dissolved but embedded in a shared Ocean that surrounds us and is within us. The sea is a pathway, not a boundary. Quoting the Caribbean poet Derek Walcott, Hau'ofa wrote: "the sea is history" (Hau'ofa 1994). The metaphor of the sea, that is open to all of us, thus reveals Pacific-Oceanic identity and history as a process. As part of this process of making a shared history, this article is focusing on New Guinea villagers and their survival.

In this article I am using New Guinean documents by senior village men that are rare written expressions at the time in an otherwise largely oral culture. As Hank Nelson wrote: "As little education was available to Papua New Guineans in the prewar period and the literate minority had few opportunities to occupy positions where they might write reports, there cannot be much surviving writing by Papua New Guineas from the war."[4] With the Lutheran German mission arriving in the late 1880s in the Huon, however, a number of locals went through mission school and were trained to read and write and to write short biographical accounts for religious purposes. By 1942, local men took over central mission institutions in their district

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[3] Dening, Greg 1993: *Mr. Bligh's Bad Language,* (Cambridge), p. 179.

[4] Hank Nelson, "Report on historical sources on Australia and Japan at war in Papua and New Guinea, 1942–45."

and kept written accounts how the communities and villages fared. These documents reveal New Guineans as active agents and participants in creating histories.[5]

The stories narrated in the diaries and reports written by senior male villagers differ dramatically from those, for example, remembered and narrated by Allied soldiers. They also emphasize different experiences and lived realities to what historians of the war in New Guinea often regard as central events. The big battles fought between the Allies and Japanese are only witnessed from a distance. Duties New Guinean men were compelled to undertake for the Allies in many locations in New Guinea, such as carrying the wounded or loading ships and lorries, are not recounted in the New Guinean war narratives from the Huon Peninsula. Nor is forced labor for the Japanese. The narrators of these war and postwar memoirs focused on their villages, and how war impacted there.

For this purpose I have concentrated on two clusters of activities by local people that are recounted in great detail in the documents, namely, food exchange and the upkeep of schooling as the lens through which to examine survival during times of great demands by Australians and Japanese forces. Food especially, like history, is shared, gifted, carried, and grown. Exchange is at the heart of these stories of New Guinean agency during the war.

Japanese Occupation

Initially in the mandate of New Guinea, life mainly went on as "usual" apart from the internment of the majority of local German men, who were taken away and brought to the mainland of Australia, and the enlistment of young Australian men into the armed forces. It was in January 1942 that the war "arrived" in the Huon, a peninsula between the Sepik and the Markham and Ramu Valleys of New Guinea. European women and children had been evacuated already weeks earlier, but then, as the Japanese navy approached, the remaining Australian men were trying to escape along the coast to Lae and Morobe and over the Cromwell Ranges up to Madang. Japanese planes and warships attacked Australian ships and local townships. The coastal waters were no longer safe. Tamigudu man M., from a village close to the mission station Deinzerhoehe at the southern coast of the Huon Gulf, wrote in his diary for January 1942:

> Many planes fly [coming from Rabaul] in the direction of Lae and Salamaua. Little later explosions can be heard and mighty columns of smoke, which rise up from both places. At the same time men from Tami [gudu] and Buenggim are out with the canoes catching tuna on the ocean. In panic they row their boats with all their might as quickly as possible to the shore, leave them rocking in the water and search for cover in the forest and behind trees.[6]

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[5] As I am still in the process of locating the families of the diarists, I am not using their names in this publication, but initials. The documents in translation are part of my personal archive.

[6] Entry for January 1942, M., *Dangers and hardships in the war*, translation in personal archive.

Six days later the villagers spotted the flotsam and jetsam of war. M. observed:

> When on Saturday we let our gaze go over the ocean we discover drift wood. It drifts towards our beach (canoe-landing place). Amongst it are some boxes. We also see a number of 200 liter metal drums drifting on the water. We immediately go to work to get as many as possible into our 'harbour'. We roll them ashore. After some hesitation we … open [them] to find out what is in them. Some are filled with rice, others with matches or candles.[7]

German missionary Johann Decker, who due to his advanced age and long residence in the Huon had not been interned by the Australians and was one of three German missionaries who stayed at their posts during the Japanese occupation, remarked that in his opinion the drifting supplies were from an attempted Japanese landing of food onshore that had been attacked by American planes.[8]

Attacks by Japanese and Allied planes and ships and the retreat of individual Australians lasted for weeks. One Australian plane had crashed nearby, and the villagers eventually brought the sole survivor, to the local German Lutheran missionary, Stephan Lehner, at Hopoi. Lehner was in his mid-60s and had lived and worked with coastal Jabem villagers in the Huon for four decades.[9] In a letter written for his evacuated wife, he commented that the pilot "who escaped death as if by a miracle" arrived bruised and exhausted and was shown hospitality at the mission station.[10] Likewise two Australian soldiers, former local plantation owners, spent a night at the mission station, "ate with uncommonly good appetite," took a "splendid bath," gave Lehner "official permission" to stay, and continued on their escape the following morning. The night before their arrival, L., a villager from Sanghu, had come to the station as a messenger, warning the mission congregation about approaching Australian soldiers.[11]

Along the coastline of the Huon peninsula between Sattelberg and Lae, information was passed on about the movements of the retreating Australians and the advancing Japanese. It was a dangerous transition period for villagers of the Yabem and Kate districts, as fighting continued, and neither the behavior of the Australians nor the Japanese was predictable. Some villagers dug trenches for shelter, and others vacated their villages and relocated to temporary huts at their fields and gardens for a while. One of the three German missionaries to remain in the Huon, Adolf Wagner, a young 28-year-old ordained clergyman, who had escaped Australian official evacuations by hiding and going bush, saw in such protective moves a lame excuse for lazy indolence. Located at the mission station Heldsbach near Finschhafen and Sattelberg—areas of heavy fighting—he commented in his diary that the

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[7] Ibid entry January.

[8] Decker, *War in the Huon*, Bavarian Lutheran Church Archives (henceforth LAELKB), MEW 4.20, Vol. 2.

[9] Lehner was born on 17 May 1877 in Nuremberg.

[10] Translated letter, dated 21 January 1942, unposted, from Stephan to Sophie, National Archives of Australia (henceforth NAA), BP 242/1, Q24767.

[11] Translated letter, dated 1 March 1942, unposted, from Stephan to Sophie, NAA BP 242/1, Q24767.

mission pupils of the Kate evangelist school had begun to work their fields, but the mission "helpers" (evangelists) had feigned illness. After bombings on 23 January, more locals absented themselves. Adolf Wagner wrote:

> 50 Japanese planes came, to bombard Lae, Salamaua, Madang and so on. For the natives this was something new and reason enough to go bush, and have a fine excuse for Sunday, too, when they did not come to church.[12]

The acting director of the middle school in Wasutieng, South of Finschhafen, M. G., who had taken over after the removal of the German missionary, remembers Japanese bombing of the surrounding area. He wrote:

> Our earth shook and we knew not what to do. We only thought the one thought that probably we would die. Our connecting paths to each other were totally cut off. It was impossible to visit each other. The people roamed without a plan.[13]

A spirit of uncertainty and anxiety prevailed. Tamigudu man M. noted in his diary the arrival of the first Japanese soldiers at his village:

> Friday afternoon we see eight Japanese soldiers coming and arriving in Tami [gudu]. On this day we see for the first time living Japanese in their uniforms. They stay overnight with us. Sunday morning they depart and go to Bukawa and Lae.[14]

That M. marks out the first meeting of his village with the new occupation army receives some further explanation through the middle school director's narration of the war. The Japanese were perceived as looking frighteningly different:

> In March 1942 the Japanese arrived in New Guinea. Then no single white person was to be seen. They only had some forward positions as spies hidden in the bush. Back then the people feared the Japanese a lot with their strange foreign faces.[15]

By April the Japanese had erected and manned a defense post at Bulo, and Missionary Lehner decided it was prudent to make contact. Food, given to the courier of their respective messages, is symbolic for the mediated encounter between Stefan Lehner and the newly arrived Japanese occupation army. At Bukawa the teenage mission pupil G. K., born 1925, who also acted as Lehner's housekeeper since the evacuation of Lehner's wife Sophie, recalls in his short memoir about the war, how missionary Lehner assembled the mission pupils and asked for a volunteer:

> 'Who of you is prepared to bring my letter to the Japanese soldiers? And to do so now?'
> We remained silent. Reason: We feared the Japanese. Never before had we seen one of their race. After ten minutes I rose and said: 'I am going'. The missionary replied: 'I know you. You always have served me really truly.'

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[12] Wagner diary, transcript, January 1942, page 29, LAELKB, MEW 4.46/1.

[13] M. G., War at Hopoi, translation in personal archive; M. G. took over the running of the school at the beginning of April 1942. In July 1942 the school was moved from Wasutieng to Bukawa.

[14] M., entry for January.

[15] M. G., War at Hopoi.

We both went up to the house. We packed ripe bananas and some eggs in tins and put them in a netted bag. The preparations finished; the missionary gave me his hand with the words: "the Lord protect you; your going out and your coming in."[16]

G. K. continues narrating the delivery of the letter and brokering favorable treatment for the missionary. That the Japanese accepted the missionary's plea for the continuation of the mission and congregation is again symbolically enacted through food provided for the missionary's messenger. G. K. recalled:

> [T]he officer wrote his answer letter. He put some tins with meat and fish, as well as bread and rice into my netted bag and dismissed me. A number of soldiers accompanied me. Only when we had travelled about half of my return trip, they left me. Towards evening back at Hopoi the missionary received me with overflowing joy.

A Japanese police force also occupied Bualu and its headquarters settled in Bukawa (Cape Arkona). Soon Japanese soldiers began sporadic patrols of the mission stations and villages of the hinterland. They attempted to stay overnight at Deinzerhoehe, a mission station slightly inland, but the remaining German Lutheran missionary, Johann Decker, a curmudgeon Wuerttemberger in his mid-70s, sent them off with the excuse that his facilities were too basic. When they returned after a few weeks, however, Decker decided on cautious hospitality. In a short memoir "War in the Huon Gulf," Decker explained his motivations: "Now I thought I cannot let them walk away again, or they would interpret that as unfriendliness." He thus arranged all available bedding in one room and prepared dinner for the patrol. According to Decker the Japanese soldiers reciprocated his kindness:

> After [dinner] we sat in darkness on my verandah and two of them begun to sing: 'Germany, Germany, above all'. They had worked in a factory in Japan that belonged to a German and learned some German songs there; but they could not speak German. We could only communicate in English. … A lieutenant said to me, I reminded him of his grandfather, and also added that his grandfather was Christian.[17]

G. K. in turn recalled that in the Bukawa area the commander of the Japanese station located at the former mission station Cape Arkona spoke perfect German and conducted his correspondence with missionary Lehner in German. His officer in charge of the military police also spoke German. These Japanese officials, according to G. K., gave supplies to Lehner and Decker, sought information on the Christian communities, and "ordered their soldiers sternly not to cause problems for the Christians."[18]

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[16] See Psalm 121, verse 8. G. K., war experiences of Missionary Lehner, 1982, translation in personal archive. G. K. wrote this account commemorating 40 years since the beginning of the war.

[17] Decker, War in the Huon, LAELKB, MEW 4.20.

[18] G. K., war experiences of Missionary Lehner, 1982, translation in personal archive.

Pigs and Rice: Japanese Initiated Food Exchange

In the beginning of the Japanese occupation, soldiers had sufficient supplies, though they endeavored to supplement their rations with fresh vegetables and meat. Accounts by New Guineans recall a sense of propriety and orderliness in these exchanges. Missionary Decker summed up his observations: "I had the impression they courted the friendship of the Papua." He commented on Japanese behavior toward villagers, many of whom by then were still hiding out away from their villages:

> [The Japanese] would have not made the imposition on the natives to leave their villages and live in the fields and the bush. Soon after their arrival they said to the natives, come back to your villages, but they had to soon see that this was impossible because of the planes.[19]

Complaints about occasional lootings were taken seriously by local Japanese commanders. Ke., a teacher at Bukawa, recalled:

> When some of our men were looking for their pigs and fields again, they caught some Japanese and chased them away. Furiously they threatened to kill M. and his brother T. The two reported the incident to the missionary. He went to the commander and told him of the complaints. At the same time he spoke up for them both. Major Jamagada[20] showed full understanding and asked the soldiers to account for their behavior. He shot both soldiers.[21]

This episode is a reminder that food was demanded and at time looted and stolen. Even exchanges and trading during the war were not a barter between equals, for who was to say "no" to men holding guns when they asked for something?

> Missionary Adolf Wagner recalled that on one trip between villages in the Kate region he encountered a small group of Japanese soldiers. They had requisitioned some of the young men of his school for work, and Adolf managed to negotiate their release. Made to guide the soldiers, Wagner came to a resting place where others were roasting pigs. Adolf voiced strong opposition to the taking of village pigs, but the commanding officer replied: 'But we have shared our rice!'[22]

In this small story, there are a number of cross-cultural misunderstandings and conflicting ideas about relationships to villagers. Adolf Wagner sees himself as a spokesperson for defenseless villagers, a shepherd to his flock, and the keeper of order and morality. From other accounts, however, it becomes clear that some villagers saw themselves in turn as the protectors of the young inexperienced German man, removing him time and again from places of danger. The Japanese in turn sometimes utilized the missionaries, Lehner, Decker, and Wagner as brokers, but mostly dealt with locals directly. In the short reply about sharing rice lies the clue as to how some of them saw their role as an occupation force. Rice, as a Japanese colleague of mine explained to me, is not shared with subordinates but only with equals.[23]

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[19] Decker, War in the Huon, LAELKB, MEW 4.20.

[20] The spelling is not a correct spelling for a Japanese name and seems to have been based on hearing the name. Possibly Yamagata.

[21] Ke., The congregation Bukawa during the war years, translation in personal archive.

[22] Wagner diary, transcript, LAELKB, MEW 4.46/1.

[23] Personal communications, Yasuko H. Kobayashi, July 2016.

New Guineans Take Control

Australian coastwatcher Harold Freund, a Lutheran (ELSA) prewar missionary who had worked on Siassi Island and was somewhat unfamiliar with conditions and people of the mainland, commented in his autobiography that all (colonial) government structures had ceased. In addition he remarked that a high number of Lutheran missionaries and Australian lay mission workers joined the army: five, including him, enlisted as coastwatchers on day 1, 18 February 1942. Freund tried to counter stories circulating in the Australian Press and later histories that the Lutherans—Germans, Australians, and Americans alike—were disloyal to the Allies and aided the Japanese.[24] His actions are a reminder that loyalties during war cut across nationalities. The coastwatchers were driven by local and personalized loyalties to each other that included the "enemy alien" German missionaries. Despite an order to shot the escaped young missionary Wagner on sight, they met and shared information and resources. When raiding supplies left behind at the Finschhafen mission station supply house, "Blue" Harris, a former patrol officer, decided, so Freund recalled, "that a fair share should be left for Rev. Adolph Wagner."[25] Coastwatcher Lloyd Pursehouse, also a former patrol officer, in addition was sympathetic to local New Guineans supplementing their dwindling resources by accessing provisions left behind by Australian officials before such supplies were all scooped up by occupying Japanese troops. In contrast taking food or clothing left behind by missionaries and officials was regarded by the senior men of the Lutheran villages along the coast not as rescuing resources but as sin. Even and especially in times of hardship, the Lord's command "thou shall not steal" counted. Those villages and individuals who had raided stores, for example, in Finschhafen, received stern reprimands and demands to bring the looted items back:

> With subsistence farming it was difficult for villagers to assist outsiders. Freund, for example asserted that the beginning of the Japanese occupation saw large numbers of indentured laborers 'stranded far from home'. … 'Village people', Freund continued, 'could not be expected to accommodate and feed strangers'.[26] While his assessments of the availability of resources was accurate, he failed to notice how the Jabem villages dealt with this problem. They made an offer to the displaced young men who moved along the coast that they could stay until the 'difficult times' of war were over, and allocated fields to them for planting, under the condition that they obeyed by the rules and conventions of the villages.

Planting supply fields, however, was out of the question for the guerilla force of the coastwatchers. As time went on, the Australians became desperate for any

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[24] Freund, Missionary turns Spy, p. 53. The five included Freund, Obst, Rohrlach, Vic Neumann, and Pat Radke. See also Hank Nelson, Loyalty at Sword point, and Christine Winter, "Disloyalty at Sword-point: an Ongoing Conversation about Wartime New Guinea, 1939–1945," *Journal of Historical Biography*, Vol 16, Autumn 2014, pp. 202–222. See also Christine Winter, Looking after One's Own, 2012.

[25] A.P.H Freund, *Missionary Turns Spy*, Adelaide: Lutheran Publishing House, 1989, p. 71; see also Christine Winter, Disloyalty at Sword Point.

[26] Freund, *Missionary Turns Spy*, p. 59.

occasional food drop, requested by them via radio that Australian planes managed to deliver. Freund felt it increased their status with local villagers, who seemed also reluctant to share their food, as may be they perceived the small group of men behind enemy lines as weak and alone. Food drops were for Freund a visible link to a powerful force far away.

News reached Stefan Lehner, who in the Jabem area was quite a distance away from the coastwatchers in the Kate region further North in the Huon peninsula, about Australians behind enemy lines, and their lack of supplies. Lehner wrote:

> The Australians are said to be still in the inland. It must be appalling, however, in regard to food, as no new supplies are to be expected, and the foodstuffs which the natives are able to deliver, are not sufficient. For no native works for general consumption. He plants only so much as is required for himself and his family. What then? Die or surrender! The Japanese are said to have caught a few Australians in Lae this week. They do not chase them. They let them carry on, doubtless because they are waiting for them to surrender…[27]

There were spaces of overlapping rule and demands on villages by both Japanese and Australians for support. Other regions experienced a power vacuum between retreating Australians and Japanese occupiers. The missionaries' accounts and those of the senior community leaders are full of comments on individuals and groups who used this situation to initiate a new order, or to take over supplies left behind by the retreating colonials. Middle school director M. G. laconically commented: "Some who lost sight of themselves had difficulties to endure."[28] Along the coast up from Lae, according to several accounts by local leading men, Lutheran church elders and teachers took control of the villages and the district. Middle school director M. G. set out the spirit that was affirmed and that through the work of villages helping each other out over great distances became a structure:

> The people from Lae to Jabem were in some sense one single congregation. They worked together well in the midst of difficult times. In November (1942) Missionary Lehner and the overseer from Lae and Bukawa appeared in Jabem. All us Jabem speaking people, we congregated at Wasutieng and tied the tie of unity more firmly. Then, on the 21 November we went to Heldsbach. There we celebrated with the Kate a big Sunday with the theme standing true together. … It was the doing of the Lord that the congregations stood together like this.[29]

Hopoi became a center where information was received and shared out, community leaders from near and far came to seek advice, and selected men went out to inspect schools and visited villages. Villagers took over responsibilities that had been the white missionaries' preserve before the outbreak of war. Village schools, middle schools, and evangelist schools were supported by villagers and kept going throughout the war. Extra fields were planted. When fighting and air raids necessitated leaving villages and sheltering in the forest or near their fields, new provisional schools were erected on a regular basis. M. G. commented that, for example, "the Lae

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[27] Translated letter, dated 10 May 1942, unposted, from Stephan to Sophie, National Archives of Australia NAA, BP 242/1, Q24767.

[28] M. G. War at Hopoi, translation in personal archive.

[29] M. G. War at Hopoi, translation in personal archive.

people had to move more than other people but they never forgot to take their school with them." From the very start of the war, local institutions that had been closed by the retreating Australians were reopened. M. G. recalls:

> The middle school at Wasutieng, whose missionary had been taken away on 16 February 1942 was closed down by the whites on 3 March and the pupils chased away. Later the Jabem took on and looked after the school, and called the pupils back together, so that we could take up our work again on 1 April 1942.[30]

The church calendars were a central tool in organizing the district, as they carried dates and locations for meetings and celebrations, baptisms, catechist exams, and the like for the year. Thus one of the first things commissioned by the Jabem district in December 1942 was for two experienced former employees of the mission printing press, T. and N., to print calendars for 1943.[31]

Chicken for Books: New Guinean Initiated Trade

The Japanese, according to J. N., a pupil at the middle school at Wasutieng, confiscated mission property, including all chickens, when they occupied Wasutieng and the neighboring village of Logaweng in April 1943. An initial agreement negotiated by M. G., director of the middle school, for access to schoolbooks stored at the printing press at Logaweng was soon withdrawn. Armed sentries patrolled the press and its store. J. N. recalled how their two teachers discussed with the pupils how further books could be gained. Enquiries revealed that supply ships had ceased to arrive and that the Japanese were in desperate need of food:

> [W]e decided to offer them field crops to gain books. Thus we plucked up courage and together with our teachers called on the Japanese and made our offer. They agreed and said if you want books in the future you will have to pay with crops and chicken. Thus on a daily basis we carried sacks full of crops to Logaweng to the Japanese.[32]

M. G. sacrificed all his chickens to get more books. The rescued books were stored at M. G.'s house, and a written note was procured from a Japanese officer prohibiting soldiers to enter the hut. After removing all bound copies from Logaweng, the pupils gathered books printed but not yet bound, and the two printing experts N. and T. were called upon to teach the pupils how to bind books. Lacking binding material, the Wasutieng group used stripes of their clothing and sowed books for their own use and that of other schools in the Huon. As the bound books had to be cut, more food transactions were required. The Japanese brought the cutting machine to Wasutieng and asked for a certain amount of Taro for each use. J. N. recalled that the bookbinding became an enterprise used by the occupation army:

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[30] M. G. War at Hopoi, translation in personal archive.

[31] M. G. War at Hopoi, translation in personal archive.

[32] J. N., The Japanese destroy Logaweng, translation in personal archive.

> Our reputation spread to Finschhafen, so that Japanese soldiers came from even there and asked us if we could bind something for them. We said we would and they unlocked the door at Logaweng for us. We used this opportunity to rescue some more books for us.[33]

In anticipation of an offensive by the Allies, the Japanese reinforced troops at Logaweng and brought cannons up to Logaweng and Wasutieng. At this point missionary Adolf Wagner decided it was time to relocate the school from what would most likely turn into a battlefield. He wrote to missionary Lehner and the Bukawa elders that the middle school was in grave danger. According to J. N. on hearing this, the Hopoi came without delay, evacuated teachers, pupils and books, and erected a new middle school amidst the Bukawa congregations. This also necessitated planting new fields to feed the pupils. During the ensuing battles, the buildings at Logaweng and Wasutieng were heavily damaged. J. N.'s recollection finishes with an appeal to his New Guinean readers:

> Dear friends, let us praise God that he protected our Wasutieng middle school during difficult times and that not one of us died.

Forced to Live Like Wild Beasts

While J. N. focused on the rescue of the school and its equipment, he did not even in passing mention the challenges such an evacuation entailed at that time. From September 1943 until February 1944, the Huon Peninsular was under constant attacks by the Allies. As part of Operation Cartwheel to push out the Japanese from the Ramu and Markham valleys, the Huon peninsula, and the Sepik, before liberating New Britain, the Huon became the site of the first amphibious assault by Australian forces since the Gallipoli landing in WWI and the first airborne operation of the war in the Pacific.[34]

The Tamigudu communities at the coast were forced to flee their village. M. detailed their actions. Alerted by a letter from the Jabem at Bukawa, and warned by leaflets dropped by Allied planes, huts and fields were relocated inland, hidden in the forest. For a while the villagers commuted between their forest accommodations and their village, especially for church services. One night the Tamigudu woman S., who experienced a long and difficult birth, was carried back to her village, where she gave birth to a healthy baby girl. But when one morning a group attending church was shot at by machine guns from planes flying over the village, the emergency huts as well as suitable mountain caves became permanent places for shelter.

Japanese troops already on retreat made their way along the coast, and Tamigudu villagers decided to slaughter all their big pigs and take the smaller ones with them into the forest. They did this, M. remarked, "as they did not trust the Japanese. Day and night Japanese soldiers in great numbers move through our

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[33] J. N., The Japanese destroy Logaweng, translation in personal archive.

[34] Dean, Peter, 2013. *Australia 1943: The Liberation of New Guinea* (Cambridge).

village in the direction of Lae."[35] In the midst of bombing raids, a dying man, Z., was carried back to the village to die. Shortly after eight American planes attack the village, according to M., and dropped one big bomb in the middle of the village. A crater remained, filled with water:

> M.'s diary details that the dying continued: a little girl died of fright; Ma.'s daughter S. died in Busengseng, and was buried at the local graveyard. The Lord "called the souls" of health assistant G E, and of Mg… Five weeks after Easter, M. dogs were beaten to death, but nobody knew by whom.[36]

Three Japanese motorboats moored at the mouth of the river Bulesom. After darkness the Japanese attempted to flee to Lae but were spotted by the Allies, chased, and bombed. The crew crashed the boats into the shoreline and escaped inland, with dire consequences for the sheltering villagers, as M. noted:

> Despite of the pitch-black night they stumbled around in the forest and some of them found the huts and caves occupied by us Tami. Our people were afraid of the Japanese, and retreated to more remote fields and field huts. They leave their emergency shelters to the Japanese who now occupy the huts and caves instead of them.[37]

Five American planes returned to bomb the deserted motorboats, hitting the village in the process, as they let the bombs glide to earth "in cloths like the umbrellas of the white people."[38]

The bombings affected people along extensive areas of the coastline of the Huon and the neighboring regions. The Australian anthropologist Ian Hogbin provided a benign version of events at the Dap village on Wogeo Island, further up the coast:

> Despite a little harmless bombing – by which side is unknown – and a short Japanese occupation, these [the effects of the conflict] proved to be mainly indirect. The worst disaster occurred when a detonating device, probably a mine, drifted to a beach near Dap. A crowd of children dragged it ashore and, ignorant of the danger, began throwing stones. In the subsequent explosion several were blown to pieces and two or three injured.[39]

With the bombing raids intensifying in size and numbers, the congregation managed to convince old missionary Decker to finally abandon his station that lay exposed and had been attacked several times. The villagers of Tamigudu, under the leadership of M., who was a trained carpenter, evacuated missionary Decker, and within 8 days took down the guesthouse at the mission station, transported it to the safety of the forest, and erected it there. While they were busy building a new emergency schoolhouse in the forest, Japanese soldiers plundered the village and took planks from houses into the forest nearby to erect some shelters for themselves. Three days

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[35] M., *Dangers and hardships in the war*, translation in personal archive.

[36] M., *Dangers and hardships in the war*, translation in personal archive.

[37] M., *Dangers and hardships in the war*, translation in personal archive.

[38] M., *Dangers and hardships in the war*, translation in personal archive.

[39] Ian Hogbin, The leaders and the led: social control in Wogeo, New Guinea, Melbourne University Press, 1978, p. 6. Hogbin during the war was lieutenant colonel in the army think tank Directorate of Research and Civil Affairs and visited New Guinea several times as official adviser on native affairs to the South West Pacific Command.

later the Japanese discovered the village fields close to the coast. M. wrote: "Japanese soldiers vandalize our yam, taro and banana gardens." The villagers resolved this, according to M, by supplying the hungry Japanese "with papaya, taro and bananas."[40]

Checking on the abandoned mission station after the relocation of Decker and the mission pupils, a small group of villagers found it looted—clothes, household items, and 30 bottles of wine for the Eucharist were missing—and they followed the traces of the invaders to the village Ulugedu. There they complained to the commanding officer, whom M. named as Sakai. The Japanese officer assembled the soldiers and retrieved 15 empty and 15 full bottles. The latter the Tamigudu men took back to missionary Decker.

That the New Guinean men dared to make a complaint is surprising. It either points to the value they placed on defending church property or the trust they placed in the correctness of Japanese army leaders. With retreating units passing through, and soldiers starved out of supplies, however, relations with the occupation force were becoming unpredictable.

These experiences were shared by villagers all along the coastline. Three years after the end of the war, an American mission paper published an appeal by a New Guinean Christian to cease wars. The message was directed at friends in "Australia, America, Sydney, Port Moresby and Japan, namely kings, governments, civil servants and lords." He wrote about the war, taking up the language of the prophet Jeremiah at the destruction of Jerusalem: "Our legs trembled and our knees wobbled like water." He summarized the conditions villagers found themselves in during the final period of fighting between the Allies and the Japanese:

> Your bombs and missiles and men overwhelmed us. Our villages, fields and part of our people were smashed and annihilated. We were forced to live like wild beasts, like wild pigs, rats, birds and cassowaries. We ate their food, vines and leaves. We begged the hills to open so that we could hide there, but in vain. Many of us died. … Our fields were plundered, and our food eaten.[41]

"When the Whites Came, They Destroyed the Whole Work"[42]

The period of retreat by one army and the arrival of another was a dangerous period for the villagers and replicated some of their experiences at the beginning of the war. G. K. recalls the time from March 1943 when the Hopoi pupils and missionary Lehner were hiding out in the forest. They were able to continue their schooling but had to be careful not to light fires at night, lest they attracted air raids. As they were unable to bake bread, all, including the missionary mainly subsisted on a diet of Taro, interspersed with occasional sweet potatoes that Hube men from the

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[40] M., *Dangers and hardships in the war*, translation in personal archive.

[41] German translation of "Lutheran Standard," Columbus, Ohio, 25/12/1948 page 5, retranslated into English by author.

[42] M. G., War at Hopoi, translation in personal archive.

mountains managed to bring them. When news of the Allied landing at Lae reached the Bukawa, missionary Lehner asked G. K. to—once more—bring a letter to the new occupation army. G. K. went along the beach, where he met Australian soldiers whom he presented with the letter and led to the forest hide out. The following day, on 7 October, the soldiers returned, and, as G. K. recalled, somewhat abruptly announced to Lehner "you come to Australia." The students and elders together with the whole community, G. K. continued, accompanied the missionary to the coast and said their farewells. G. K. was aggrieved that the pupils and villagers were unable to further assist or protect Lehner: "In our presence the missionary was treated correctly by the soldiers. But if they continued to do so we do not know."[43]

The Allies reached Tamigudu and missionary Decker about 2 weeks later. M. narrates that peace came slowly, with the Japanese retreating from their village, Allied soldiers arriving 2 days later, and occasional skirmishes and fighting erupting that could be heard from afar. Not long after that a jeep loaded with telephone cables rolled along the local road. M noted that "the old men and women could not stop being amazed, because never had a lorry come so far as to us during peacetime." Many ships passed by, and one had soldiers disembark. W. A. Money,[44] according to M., a plantation owner from Umboi on the island of Siassi-Rooke updated the villagers on the state of the war.

By the time the first labor recruiting occurred, the villagers were still in their forest hideouts. On 2 October 1943, Sergeant Iwago,[45] from the Royal Papuan Constabulary, approached the villagers asking them for several young men and was allowed to take eight with him. The men assisted Allied soldiers clearing the bush at Bukwang and Butaweng, the place of the former mission sawmill, before being taken further up the coast to Sattelberg and Wareo. From M.'s account it becomes clear that the villagers were keeping an eye out on the whereabouts of their young men. A further six young men, M. wrote, were taken by military police to unload ships in Sambojang and Kaming. While the first encounters with advancing Papua

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[43] G. K., war experiences of Missionary Lehner, 1982, translation in personal archive.

[44] William Alfred Money, soldier, plantation owner, and gold prospector, was born 1895 in London, had migrated to Australia in 1914, and had lived in New Guinea since 1919. For Money's service record of WWI and WWII, see NAA: BP709/1, M40037. During WWI after war service in the AIF (he was wounded at Gallipoli in 1915), he returned to Australia in December 1918 and in January 1919 joined the AN&MEF, the military occupation force of ex-German New Guinea. He worked as a planter and trader and made his fortune gold prospecting. His biographer characterized him as "a confirmed bachelor and a rugged individualist who savoured the hardship, adventure and independence of life in New Guinea, Money thrived on irregular warfare, in which he was unfettered by strict military discipline." Peter Hohnen, "Money, William Alfred (1895–1958)," Australian Dictionary of Biography, National Centre of Biography, Australian National University, http://adb. anu.edu.au/biography/money-william-alfred-11147/text19855, published first in hardcopy 2000, accessed online 9 August 2017.

[45] The Australian War Memorial collection holds a drawing of G. M. Iwago, with the caption, that he was a "native Police Boy" who was awarded a "George Cross in Scarlet Beach Landing, Kokakoc, New Guinea." AWM accession number ART22699. Sargent Iwago, from the Finschhafen area, had been a policeman for over a decade and had served during the war in the Royal Papuan Constabulary. See Australian War Memorial collection: https://www.awm.gov.au/collection/ C76824, retrieved July 20, 2017.

New Guinean, Australian, and other Allied soldiers are recalled as mostly informal, soon colonial rule and formality were reinstated. M. recalled:

> A government official comes and has us all line up in rows. He takes many of our young boys to Lae for cleanup work. ANGAU[46] stays for two days at Tami[gudu], and then goes to Ulugedu.

The same government official also visited the forest shelters in order to speak to missionary Decker. Accompanied by a group of police soldiers, M. recalled, he announced that Decker would have to come with them. M. continues:

> My father and I are the only ones who are there with the missionary in his hut. He hands us the keys to his boxes and places the whole work into our hands. We accompany him to Ulugedu together with the government official.[47]

> One local, K. G. managed to accompany Decker on the motorboat to Lae. Decker was taken to the mainland of Australia, never to return.[48]

Adolf Wagner, who had received news about the removal of the missionaries, attempted to avoid meeting up with Allied troops[49] and was shot by Japanese soldiers in December 1943. In 1947, a local evangelist B. showed Adolf's brother Emil[50] and his wife Linda the place Adolf died. Linda recalled that walking along B. pointed out a number of places and events that happened during this last phase of the war. At one place a Japanese soldier driving cattle along a narrow path lost direction and

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[46] Australian New Guinea Administrative Unit.

[47] The Australian War Memorial collection holds a photo taken on 25 October 1943 of Missionary Decker "with his native boys in a hut which he built in the jungle to escape the Allied bombing raids." See https://www.awm.gov.au/collection/C18457, retrieved July 20, 2017. Note that the picture shows two older men and one teenager and that the hut was built for Decker by local villagers.

[48] M., *Dangers and hardships in the war*, translation in personal archive. Neither Stefan Lehner nor Johan Decker was able to get back to New Guinea. Stefan Lehner was not given a permit by Australia, and died, while still lobbying for his return. Johan Decker was, despite his protests, regarded by the mission as too old.

[49] Wagner diary, transcript, January 1942, page 29, LAELKB, MEW 4.46/1. See Tilde Wagner, Thilde Wagner, Es kommt die Nacht…: aus dem Tagebuch meines Mannes Missionar Adolf Wagner, Neuguinea, 1942–43 (Neuendettelsau: Freimund-Verlag, 1964). There is work done on the fate of Japanese "stragglers," soldiers who did not surrender immediately; see Beatrix Trefalt 2003, *Japanese Army Stragglers and Memories of the War in Japan, 1950–1975*, Routledge Curzon, Abingdon UK. The mass starvation of retreating Japanese soldiers, and what they inflicted on villagers further inland, however, is still awaiting investigation. Some accounts of hunger and Japanese army units is detailed in Georgina Fitzpatrick et al., *Australia's War Crimes Trials 1945–51,* Brill Nijhoff, Leiden & Boston 2016, Chap. 11, pp. 291–325. Fitzpatrick analyses in particular war crimes trials that dealt with the accusation of cannibalism by Japanese individuals.

[50] Adolf was German, but Emil Australian, that is a naturalized British subject (NBS). The brothers were born in New Guinea of German Lutheran missionaries. In 1942 Emil, evacuated from New Guinea and interned in South Australia, explained during his (successful) appeal against internment that his parents had sent all their children, but Emil, back to Germany for education. Emil had begged to be allowed to stay in Australia for basic schooling and then work on a farm, as he regarded himself a slow learner. He later became a lay missionary in New Guinea. Emil stated: Australia "is the only country I've known." NAA Brisbane, BP242/1, Q31877, transcript 4 November 1942 South Australian National Advisory Committee re Emil Wagner.

fell down a steep embankment, Linda wrote. At another place B. pointed out that "there a Japanese lay with fever and died. Now he rests under a pile of stones, over which we had to walk."[51]

The war, that is most fighting and bombing, ended in late 1943, early 1944, but Papua and New Guinea remained under military administration until October 1945. In the collection of the Australian War Memorial are a great number of photographs taken by official photographers of the Australian military administration ANGAU, with captions written that show that their use was not only to document events but to publicize them to a wider Australian public. The overarching narrative is one of liberation and joy, and of order and resource stability returning. An image of a group of 30 smiling children in front of a local hut at an unspecified coastal village in the Huon, taken in February 1944, has the following caption:

> New Guinea. 15 February 1944. A group of local native children in their rebuilt village. As troops pushed back the Japanese along the coast of the Huon Peninsula, natives straggled back to their villages which had been wrecked by retreating Japanese. Natives fled to the hills when the Japanese first entered the area. Some who could not escape were forced to work in Japanese carrier lines but seized every opportunity to make a break for the hills. As the Japanese retreated, native gardens were systematically wrecked and the natives were on the point of starvation when troops advanced. Brought back to their villages and fed on Army rations by Australian New Guinea Administrative Unit (ANGAU) officers, the natives soon began to pick up in health. In return for food and medical attention and regular pay, all the able bodied natives of this village are working in carrier lines taking supplies to Australians further north.[52]

Several further images, all with the word "bartering" in the caption, show army barges at various locations along the coast of the Huon between Lae and Sattelberg, loaded with fruits and other field produce for the use of ANGAU.[53] One caption explains that:

> Tamigudu area, New Guinea. 1944-05-12. Tamigudu natives carrying fruit and vegetables from native gardens to the beach. Most of the work is done by native women who carry produce in a 'billum' (string bag) slung from the head. A weekly barge has been chartered from Lae by the Australian Army Service Corps to transport the fruit to the detail issue depot who despatch the fruit to the 2/7th General Hospital and provide any surplus to units in the Lae area. A bartering arrangement has been made by Australian New Guinea Administrative Unit with the Luluai (village head), to exchange army rations for fruit and vegetables.[54]

The histories narrated by the captions paint a picture in black and white, making a distinction between Japanese destruction and Australian rebuilding, that erases for one the impact Allied bombing had in the region. They also give no second thought to the impact on the local economy and food production that ensued when "all the able bodied natives of this village are working in carrier lines" and fields were to carry additional crops for the use of the Australian army. Who was to carry out the work in the gardens and fields? And what changes to crops had to be made with all the young men gone from the village—some crops like the more nutritional Taro

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[51] Linda Wagner, a trip to Zagehemec, excerpts, LAELKB, MEW 4.46./1, translation by author.

[52] AWM image no. 016566.

[53] See, for example, AWM images 073061, 073066, 073072.

[54] AWM image 073061.

necessitates hard work, while the less nutritional sweet potato can be planted and harvested with less effort. The New Guinean war memoirs are silent on these matters. They do, however, narrate the effect the Australian military occupation had on some villages as a whole that had to make way for army units and relocate—and some of the effects recruiting had on the region's education efforts.

New Guineans from the Huon peninsula had to wait until 1947 for the return of missionaries and European teachers. Until then, as M. G. set out in his memoir that doubles as a community and education history, New Guineans carried the work alone in trying circumstances first under military and from October 1945 under civilian administration that drew, however, initially on mainly the same army personnel.

The running of schools suffered from a lack of teaching material, lack of students, and lack of teachers. The young men were recruited for labor by the Australian military administration, ANGAU (Australian New Guinea Administration Unit). At Hopoi the seminar that had been relocated in the face of bombardments and battles from Wasutieng had to close in September 1943 and was only able to reopen at the end of 1946. M. G. recalled that "all students had been taken away by the white people" on 10 September 1943 and only trickled back in small numbers. Labor recruiting left villages depleted of young men.

In addition, the armed forces occupied strategic places at the coast, necessitating whole villages to relocate. The people of Tamigudu, for example, were removed from their village to make way for two Australian army units in late October 1943. In contrast to stories of liberation and rebuilding of New Guinean infrastructure by ANGAU, M. G. wrote that by October 1945 the Jabem people like the Lae people had suffered greatly:

> Their whole land and beautiful coastline now belonged to the white people, and they themselves were pushed into the mountains, and built a village there called Talabe.

G. M. continues this story of loss with an aside to community resilience: "In Talabe they rebuilt their school…"[55] In 1947 the middle school formerly at Wasutieng was finally reopened, too, at Kahnsaung near Lae. M. G. remarked:

> These were difficult times for us, because we had no school missionary to help us. We natives had to run these important schools all by ourselves. But God's blessing was with us.[56]

Conclusion

In histories of the Pacific War, and its impact on Papua and New Guinea, war historians reconstruct and analyze battles and troop movements in great details.[57] In most published accounts, Papuans and New Guineans are marginal, even when they

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[55] M. G., War at Hopoi, translation in personal archive.

[56] M. G., War at Hopoi, translation in personal archive.

[57] See, for example, John Coates, *Bravery above blunder: the ninth Australian division at Finschhafen, Sattelberg, and Sio*, Oxford University Press 1999; see also Hank Nelson, "Report on historical sources on Australia and Japan at war in Papua and New Guinea, 1942–45."

worked for the war effort, and the fates of local civilians are even more neglected. This is partly because of a lack of interest, partly because of a lack of sources. In the lead up to the 75-year commemorations, a number of oral history projects have started up, localizing an analysis of the war and detailing participation by Papuans and New Guineans. Such localized histories are more than simply small, local micro-histories. They are a fundamental change in outlook.

The war in the Huon Peninsula challenged colonial structures to their core. New Guineans developed their own chronology: up to WWII *German taim* (German time), followed by *taim belong faet* (fighting time), and postwar by *taim bilong Australia na kipa* (Australian and Kiap time). By extending German time right up to the outbreak of WWII, New Guineans were not engaging in historical forgetting but cultural-historical positioning.[58] Though Australia took colonial control in 1914, regular Australian patrolling of the Huon Peninsula only really started in the mid-1930s, and until the outbreak of war, the German mission structures remained central to colonial rule. The accounts I have used in this chapter are by New Guinean men from the Huon Peninsula, who place themselves firmly on the side of the mission and Christianity. The mission's social structures strengthened, they argue, the connectedness of villages along the coastline of the Huon peninsula and into the hinterland and stabilized village communities during what they referred to as "difficult times."[59]

These accounts also enable an investigation into local impacts of the Pacific War, without which, I argue, histories of the war stay one-sided and bereft. A history of the Japanese army in New Guinea would not be complete without the villagers who planted the taro they ate. What a return of the Australians entailed would be diminished, if we would not, like the village elders, follow the young men recruited for labor along the coast. And how could we, I argue, write about any bomber command without following the bombs down onto the ground, where, as M. recalled, they left a crater behind in the middle of the village, slowly filling with water. It is thus to "grounded" histories of the Pacific War that this chapter seeks to contribute.

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[58] Kaima, Sam 2000: "Ammak Tapduk: Kaiapit-Saidor Track during the Second World War" [online publication, retrieved July 10, 2017, from http://ajrp.awm.gov.au/ajrp/remember.nsf/].

[59] Kaima, Sam 2000: "Ammak Tapduk: Kaiapit-Saidor Track during the Second World War" [online publication, retrieved July 10, 2017, from http://ajrp.awm.gov.au/ajrp/remember.nsf/]; Read, K. E. 1947: "Effects of the Pacific War in the Markham Valley, New Guinea," *Oceania*, 18(2), 95–116; Hogbin, H. Ian 1951: *Transformation Scene;* Powell, Alan 2003: *The Third Force: ANGAU's New Guinea War, 1942*–1946, (Melbourne).

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Chapter 6
Vignette: Limits to Growth, the Rohingya, and Planetary Health

Colin Butler

Abstract The repeated expulsions and flights of the Rohingya people from Myanmar, documented to occur periodically for over two centuries, are widely and correctly interpreted as egregious examples of human rights violations. It is here hypothesized that this violence has ecological causes in addition to the better recognized social factors, such as intolerance, inequality, and religious and cultural differences. Furthermore, this case study shares characteristics found in an increasing number of locations and countries, most or perhaps even all of which are relevant both to the emerging discipline of 'planetary health', in addition to the far older conceptualization of 'limits to growth'. If these hypotheses are correct, it follows that far more effort is needed to improve the underlying ecological factors, in order to reduce repeated and perhaps even worse future abuses of human rights.

Keywords Human rights · Limits to growth · Myanmar · Neoliberalism · Planetary health · Refugees · Rohingya · Rwanda

Numerous violent expulsions and panicked flights of the Rohingya, a minority population mainly from Rakhine state in Myanmar, have been documented since the eighteenth century, but their incidence and scale have increased since 1978. Of a population estimated at 1–1.3 million, over 700,000 Rohingya fled Rakhine in late 2017, joining hundreds of thousands of Rohingya already living in exile in squalid refugee camps in Bangladesh (White 2017).

The compressed summary on planetary health was posted by Colin Butler.

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The 2017 expulsion of and flight by Rohingya is the largest yet. Although Rohingya-led violence is well-documented (International Crisis Group 2016), many argue that the response of the Myanmar state is grossly disproportionate. The adverse health effects of this violence and exile are immense, profound, diverse, and multigenerational (White 2017; Riley et al. 2017).

These effects may arise, in part, from social responses to deteriorating physical ecology.

Rakhine is fertile, but growing tension over resource distribution (Kattelus et al. 2014), combined with weak institutions and population growth, has been identified as likely to contribute to human insecurity in Myanmar. The 1994 Rwandan genocide has been postulated as an "eco-social" phenomenon, arising from growing resource scarcity interacting with social ecology, expressed as fear of the other, racism, and entrenched beliefs and behaviors, expressed by both victim and perpetrator groups (Andre and Platteau 1998, Butler 2000).

It is here theorized that many subtle changes, as yet poorly studied, in the physical ecology of Rakhine have contributed to the plight of the Rohingya.

As in Rwanda, a dynamic of competing social ecologies has generated violence, on a background of real and perceived resource scarcity.

Many vested interests inhibit resolution, and even diagnosis of this chronic health emergency. The most obvious obstacle is the hostility of the dominant Buddhist population in Rakhine, supported by an aggressive central government and military. The United Nations Security Council action is inhibited by China, which shares with Myanmar anti-democratic impulses and practices (Kattelus et al. 2014).

Diagnosis and remedy of the Rohingya crisis is also inhibited by dominant neoliberal academic discourse, which for decades has suppressed and failed to integrate the multidisciplinary evidence that underpin and explain the growing planetary heath emergency.

Two particularly important strands are approaching limits to growth (Butler et al, in press) and the once widely accepted view that rapid population growth generates and entraps impoverished populations (Butler 2016a, b, 2017a, b, Butler and Higgs, 2018).

In response to the most recent crisis, the United Nations High Commission for Refugees has helped to fund Rohingya camps, supported by many aid groups, such as Médecins Sans Frontières (White 2017).

There has been much criticism of Myanmar authorities, especially from Western sources (Bolopion, 2017). Inevitably, however, these criticisms and attempts to assist, even if noble, can do little to solve the really deep causes.

Concluding Comments

Although aggression, fear, violence, and hatred have deep evolutionary roots, a future can still be created in which populations, even if culturally diverse, such as in Rakhine, live in partial harmony or at least coexist. Implementation of these solutions has

several preconditions. These include a global reawakening, both high-level and distributed, that the scale of human cooperation needs to be widened to the planetary level, and an evolution of technology which allows the worst physical manifestations of adverse environmental change to be kept within tolerable levels.

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Chapter 7
Vignette: Human Rights and the Rohingya Refugees

Sharmin Sultana, Muhammad Busyairi, and Janet McIntyre-Mills

> *'I was born in Burma, but the Burmese government says I don't belong there. I grew up in Bangladesh, but the Bangladesh government says I cannot stay here. As a Rohingya, I feel I am caught between a crocodile and a snake'.*
>
> *—A 19-year-old refugee, Nayapara camp (Frontières-Holland 2002: 8)*

Abstract The vignette gives a brief insight into the historical background of the Rohingya Refugees and hints at the extent of their victimization at the hands of the state. It grounds the issues of conflict, displacement and loss as a current and unfolding issue. More people have experienced displacement currently than during the Second World War (UN Director). The United Nations Declaration of the Rights of Indigenous People has been ignored in the case of the Rohingyas.

Keywords Rohingya · Human rights · UNDRIP · Atrocity

Some Background

According to the United Nations High Commissioner for Refugees, Guterres (UNHCR 2014 cited in Rusbridger 2015), for the first time since the Second World War, the global figure for displaced persons has now passed 50 million, and, by 2050, this figure could be as high as 150 million (Rusbridger 2015: 13). And yet the needs of the displaced are not addressed through the current architectures of democracy, governance and education. Surely it is time to reframe the social contract and to support public education to enable people to join up the dots?

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Rohingya is a controversial term which is used by UN. The Myanmar government calls this group of people 'illegals' or 'Bengali immigrants'. The vignette addresses the historical exclusion of Rohingya people by the Buddhist community. It focuses on the human rights issue in terms of the UNDRIP. Rohingya people have suffered from the hostility of the Myanmar government and Rakhine Buddhists. Some were killed, the women were raped, and many houses, villages, and mosques were burnt. In 1978 and 1991, they were forced to flee in huge numbers with over 200,000 people in each of these years. Although making agreements with Bangladesh on the repatriation, the Burmese government has not intended to let Rohingya stay peacefully in Arakan. It can be seen from the recent data that since 2012, over 159,000 people fled to neighbouring countries (Mahmood et al. 2017). Recently, 370 Rohingya people and 15 members of Myanmar security forces died (The Washington Post 2017) caused by confrontations in Arakan. According to the United Nations report, the total death caused by this conflict is more than 1000 people (Kompas 2017b).

The Legacy of Colonialism

"Those, who cannot remember the past are condemned to repeat it"

—Philosopher George Santayana

The Rohingya people in Rakhine state of Myanmar have faced violence in recent weeks. But they have faced discrimination since at 1948 when the military government singled them out as illegal citizens.

Indigenous rights have been undermined through the dispossession of their land and limiting the rights. For decades, Rohingya people have been subjected to excessive violence, forced settlement, and human rights abuse. Their oppression is not the consequence of human nature or laws; it is the outcome of social construction (Ardill 2013: 324). Traditionally, the society of Myanmar had structured by majority and powerful dominance (Klein 2016: 249). Around 951, the Arab merchants choose the Rumri port to business with China, and there was constant influence of the Muslim religion. Between ten centuries (AD) and 1580, Chittagong region was controlled by the Muslim Sultan. Then Arakanese was powerful. In the sixteenth century, Arakanese adopted war techniques from Portuguese and began numerous attacks to capture slaves (Ventura 2014: 10–16). At present, those slaves and their offspring are known as Rohingya (Abrar 1995: 3–6).

After the third Anglo-Burmese war of 1885, British led to control over Burma and influenced a large number of refugees to return from Chittagong (Nicolaus 1995: 1). British occupied them as workforces for cultivation with lower wages. In the Second World War, the Arakanese communities divided into two parts; the Buddhists were in favour of Japan and the Rohingyas were loyal to British. The colonial policies encouraged Rohingya people to support British from their expectation of autonomous state. However, they were not given an autonomous state (Abrar 1995: 3–6). During Myanmar's independence struggle, General Aung-San

promised a new state of Federal Union. Unfortunately, in July 1942, Aung San and six other ministers were assassinated. The Myanmar military took over the control. After the colonial period, the Rohingya people were powerless and dominated by the Military Group. The Muslim civil servants and policeman were replaced and were banned from military service. In 1982, the Myanmar Citizenship Law was introduced. It denied citizenship to the Rohingya people. Now they are stateless (Ventura 2014: 27). Social exclusion and systematic marginalization disadvantaged them in ways that denied their rights. They became socially, financially and politically powerless (Sodhganga 2008: 5) and stateless.

Human Rights Issue of Rohingya People

One of the fundamental foundations of human rights is the principle that all human beings are born free and equal in dignity and rights (Ullah 2011: 149). Human rights is an inherent value which is based on equality and mutual respect. As a human being, Rohingya people have the right to life, and free from cruel.

The lack of domestic rights protection influenced UN to establish international laws to promote norms, value, and standards to the member states to protect the rights of Indigenous people (Arzey and McNamara 2011: 734). Like other countries, Myanmar is also the member state of UN by ratifying UNDRIP in 2007. UNDRIP is also an important guide to ensure the rights, dignity, and well-being of the Rohingya people. Additionally, it also focuses basic standards of rights in land, culture, natural resource, and self-determination. Articles 1 and 2 of UNDRIP mention human rights; Articles 3 and 4 focus on the right to self-determination (Dunne and Hanson 2009: 66). However, protection of human rights and self-determination of the Rohingya people are limited because they have no recognition, freedom, and sovereignty.

Recent Violence and Hidden Cause to Force Out Rohingya People

In August 2017, the state began a so-called cleansing operation. In Kachin state, more than 500 acres of land was confiscated for gold mining. Similarly, the China National Petroleum Company is connecting Rakhine in September 2013 to take oil and gas from the Shwe gas field. A parallel pipeline is also expected from Middle East (The Conversation 2017). They are forcefully removed from their native land. Devastating cruelty is used to the displacement displace people, including rape, torture, and burning homes. The UN has taken initiatives but failed to protect them. Now, the UN calls them 'the most persecuted refugees' (Zawacki 2012: 21).

The Indian Prime Minister visited Myanmar on 6 September, but did not provide assistance; in contrast, he supported the Rohingya cleansing operation (The Times of India 2017).

The refugee camps into which Rohingya women and children have been displaced for 'safety' as they are unwelcome in both Bangladesh and Myanmar are not protected from the predatory traffickers who have been reported to snatch children from camps in Bangladesh.[1]

This brief vignette provides a current example of displacement and loss that unfolded at the time of the symposium and makes a plea to ensure that representation and accountability of Indigenous peoples be taken into consideration as a way to ensure that they do not become invisible victims in a process of conflict, displacement, and dispossession.

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Chapter 8
Transnational Corporations and West Papua: A Friend or Foe for Indigenous People of This Region?

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Abstract The responsibility of transnational corporations has become a popular issue nowadays, especially in relation to the rights of indigenous people, who inhabit areas in which natural resources are being exploited. The conflict between stewardship of the land and capitalist industry, thus, became catalyst for the emergence of indigenous activism. This was the case of US-owned Freeport mine operating on the land of indigenous people in West Papua. The corporation has a record of being suspected of human rights and environmental abuse allegations. Despite the negative implications of the mining on the health of population, Freeport was quite immune to the continuous criticisms it earned. This essay examines two key questions about the operation of this mine: how did it affect the socio-economic well-being of Indigenous people, and has Freeport taken any measures to resolve those issues in an appropriate manner? This essay will first discuss the troubled history of the mine and examine its adverse impacts on environment and socio-economic aspects of indigenous West Papuans. It will then evaluate the struggle of those people to gain redress from the system, followed by the steps taken by Freeport to accommodate that demand, viewed from the lens of international laws.

Keywords Environmental justice · Mining · Indigenous rights

West Papua is constructed out of the territory covering the western half of the New Guinea Island. Most of native Papuans are Melanesian Pacific Islanders (Abplanalp 2012). Papuans define themselves by ethnolinguistic groups with tribal leaders,

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which govern their own lands (Sethi et al. 2011). In 1969, Indonesian government incorporated West Papua as Indonesia's easternmost province through the UN's 'Act of Free Choice', which has been refuted by many natives (Saltford 2000). Freeport operation in West Papua dates back to Soeharto authoritarian regime, when it signed the contract of work in 1967 and gave the exclusive concession to explore 250,000 acres of the areas to PT Freeport Indonesia, a subsidiary of giant American company Freeport-McMoRan (Asia News Monitor 2017). The contract overlooked the traditional land rights of Amungme and Kamoro, the indigenous people of the region, neglected to provide adequate protection for their livelihood and largely devoid of environmental obligations (Soares 2004). It presented Freeport privileges in exploiting mineral resources and the right to resettle Papuans from their indigenous land, without requirement for compensation and prior consultation with traditional owners. Freeport's operation in Grasberg is the largest gold mine and the third largest copper mine in the world, with daily production of 5377 ounces of gold and 1651 tons of copper in 2010, not to mention the silver, cobalt, and molybdenum by-products (Abplanalp 2012; Sethi et al. 2011; Woodman 2017). Ironically, this rich mining is conducted in one of the poorest provinces of Indonesia, in which the indigenous people remain marginalized from extraction activities on their land. Perpetual conflicts arose between indigenous communities and Freeport, mainly in regard to environmental impacts, socio-economic development, and human rights of Papuans.

Extractive industry and environmental deterioration are inextricably related, due to its burden on water, air, and ground resources. Grasberg mine is one of the only two mines globally that still use riverine disposal to handle mine wastes, with 230,000 tonnes of highly toxic tailings (ground waste) being dumped daily into the Ajikwa River, which West Papuans depend upon (Ride 1999). In 2000, the disposal system caused overburden stockpile slippage in the Wanagon River which killed four workers and relocation of local people (Worthington 2001). Moreover, West Papuans living in the river communities lost their traditional fishing grounds and suffered malnutrition, inadequate clean water, and sanitation from mining pollution, all of which led to an outbreak of cholera in 2010 (Abplanalp 2012). The forced relocation, the lack of remedy, and redress for the environmental devastation in the concession area reflect disregard for customary land rights of indigenous people.

Grasberg mine also deeply clashed with the sociocultural lives of local tribes. While Freeport treats West Papua as a commodity to be exploited, native peoples see the land as a physical and spiritual landscape to be protected. To develop its mine, Freeport has cut the top of the mountain and dug out its heart, where the Amungme people portray this mountain as 'the sacred head of their mother' (New Internationalist 2002). It undermined traditional subsistence lifestyle of local tribes of this region (Soares 2004). Furthermore, Freeport's presence has coincided with the low socio-economic development in West Papua, as evidenced by the highest rate of illiteracy, infant deaths, and HIV. Eighty percent of West Papuans live in absolute poverty, and 60% are illiterate (BBC 2008). Due to the mining operation, the region is overflowing with illicit activities, including prostitution and drugs, which led to the fastest spread of HIV/AIDS in Indonesia (BBC 2008). The misery suffered by native people influenced the growing separatist fervour in this region.

For a long time, Freeport has been relatively unaffected by external criticism due to its leverage on economic growth and job creation. Ninety-one percent of West Papua's GDP is attributed to Grasberg mine (Asia News Monitor 2017). Freeport also continues to serve as Indonesia's largest taxpayer, with US$1.4 billion tax bill annually (Abplanalp 2012). Local people are also dependent on employment provided by the mining. Freeport employs 12,000 Indonesian people as full-time workers, 36% of whom are native Papuans (Asia News Monitor 2017). Regardless of the company's substantial role as patronage and revenue source, there is a basic power inequity between Freeport and local communities. Only small portion of the mineral revenue returns to native Papuans.

For the indigenous population, Grasberg mine is a focal point in their struggle for land rights and freedom. In the early operation of Grasberg mine, the Amungme and Kamoro conducted various kinds of protests to resist resource extraction, including 'the posting of traditional anti-trespassing sticks around Freeport's highlands basecamp, public demonstrations, raising the Papuan Morning Star Flag on the mining site, and the sabotage of the company's copper slurry pipeline in 1977' (Soares 2004). *Organisasi Papua Merdeka* (Free Papua Movement) also emerged to seek independence (Bertrand 2011). Freeport then became the root cause of human rights abuses in the restive West Papua region, when its security forces, along with Indonesian military, allegedly involved in widespread attacks on local people to suppress their protests that might threaten Freeport security. In 1970s, the military violence had caused at least 30,000 deaths of indigenous people, followed by military bombing and strafing of villages surrounding the mine, which killed more than 1000 natives and forced 5000 to hide out in the forest or flee to the coast (Kyriakakis 2005; Ride 1999).

Global institutions have encouraged transnational corporations to act responsibly towards local people, by proposing various international rules regarding corporate responsibility. According to the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP), Freeport's conducts have violated several norms of indigenous people's rights, including their 'collective right to live in freedom, peace and security as distinct peoples' and not to be 'subjected to any act of genocide or any other act of violence' (UN General Assembly 2007). Furthermore, indigenous Papuans should have been bestowed fair and equitable restitution for their traditional lands and resources that have been used and damaged by Freeport without their free, prior, and informed consent. Another standard is the 'UN Norms on the Responsibilities of Transnational Corporations and Other Business Enterprises with Regard to Human Rights', which recognize six categories of rights (Zenkiewicz 2016). With reference to this norm, Freeport behaviour has breached at least three fundamental rights: the right to equal and non-discriminatory treatment, human rights, and environmental protection. However, it is difficult to bring transnational corporations to account for their involvements in such conducts. In fact, according to the US court, no corporation has ever been subject to any form of obligation under international human rights standards (Zenkiewicz 2016). Indeed, it should have been the main responsibility of the host states to regulate transnational businesses. Yet, Indonesian government seems neither capable nor willing to ratify

international human rights laws as a legislative measure to control the operation of transnational corporations in its territory.

Favourably, repression was less intense in 1990s than the first few decades of Freeport's operation. To seek redress from the system, Papuans have resorted to legal channels and linked themselves with transnational advocacy networks. Through the UN Working Group on Indigenous Populations, they reported the criminal violence happening in West Papua, the repression of Papuan expression on culture, and indigenous land dispossession associated with Grasberg mine (Bertrand 2011). In 1995, John Rumbiak, a Papuan human rights activist, worked with the Australian Council for Overseas Aid (ACFOA) to publish 'Trouble at Freeport', documenting episodes of torture, murder, and disappearance committed by Freeport and Indonesian military (ACFOA 1995; Simpson 2003). In terms of legal measure, in 1997, the Amungme brought lawsuits against Freeport under US legislation, although later the lawsuits were unsuccessful (Hernawan 2017). In the same year, hundreds of local peoples deployed a riot near the mine site, causing temporary shutdown of the mine and leading to an investigation by the National Commission of Human Rights (Kyriakakis 2005).

The period after the riot has acknowledged some advancement in Freeport's conduct. The growing public scrutiny and condemnation compelled Freeport to acknowledge partial responsibility for environmental, socio-economic, and human rights situation in West Papua. In 1999, the company endorsed a 'Social, Employment, and Human Rights Policy' as a guidance to deal with indigenous people (Sethi et al. 2011). Then, an internal voluntary code of conduct named 'Guiding Principles for Indonesian Operations–People and the Community' was formally instituted in late 2003, summarizing company's commitments to the community surrounding the mining areas (Sethi et al. 2011). The Principles covered issues related to special status of workers from the seven indigenous groups who were the aboriginal inhabitants of the land, their socio-economic development, as well as human rights protection. Freeport also signed up to the 'Voluntary Principles on Security and Human Rights' (VPSHR), working together with NGOs to promote and protect human rights in association to its operations (Abplanalp 2012). In terms of environmental responsibility, Freeport has been a signatory of ISO 14001 environmental standards since 2001, to forge ahead its commitment in reducing the environmental impact (Sularso 2016).

Efforts have been undertaken to improve West Papuans' socio-economic development. After a lot of prodding from the Amungme and Kamoro, Freeport established 'One Percent Trust Fund', as its pledge to allocate 1% of its annual mining revenue to advance education and health, economic and human resources, housing, and clean water (Soares 2004). Since its inception in 1996, Freeport's contribution to the Fund has reached over US$690 million (Freeport-McMoRan 2017). In 2001, the Amungme and Kamoro had been granted the 'Land Rights Trust Fund', as recognition of their traditional land rights in the concession area. Freeport granted US$2.5 million at the beginning and US$500,000 annually afterward, allowing them to acquire shares in Freeport-McMoRan and making them stakeholders in the mine (Soares 2004). However, despite myriad improvement in West Papua, there is

still a lack of binding legal instruments to hold Freeport responsible and guarantee its compliance with human rights liability.

The state has also taken pivotal steps in the right direction. The enactment of the Special Autonomy Law for Papua in 2001 guaranteed 80% of mining revenue to local authorities (Indonesian Government 2001). Moreover, after long bargaining with Indonesian government, in 2018, Freeport agreed to transfer its majority share to Indonesia in order to prolong its operation for the next two decades, since the 50-year contract of work will expire in 2021 (Siahaan and Butar-Butar 2017). With 51% ownership of the mine, President Jokowi believed that it would greatly benefit the national interest and those of Papuans (Topsfield 2017). Unfortunately, the government focused more in gaining revenue and control over the mine and did not factor human rights and the concerns of indigenous people into the agreement (Coca 2017). The government should have involved representatives of indigenous Papuans in the negotiation, since they are the holder of customary rights and will directly bear the environmental, social, and human rights impacts for another 20 years.

Just as Larissa Behrendt (2003) has asserted, indigenous rights are 'the miner's canary'. The need to study the power dynamics between transnational corporations and indigenous peoples is to test the quality of democracy and (in)justice imposed upon those peoples. In relation to capitalist industries, it is common for indigenous peoples to be oppressed by the system. They suffer permanent disruption of their traditional rights to land and natural resources. Putting aside the issue of environmental carnage, transnational corporations are also accosted with problems of human rights violations and their impact on sociocultural and economic development of local peoples. Freeport situation is one among numerous cases where corporations encounter allegations of human rights abuses. After decades of repression and struggle, West Papuans have succeeded in pressuring Freeport to recognize them as historical actors to be reckoned with. However, there is an urgency for legally binding regulations to guarantee stronger accountability from transnational corporations, either directly via liability under international laws or indirectly through the host states. Strong regulations coupled with continuous external monitoring could enforce corporations to behave in a more responsible manner.

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Chapter 9
Avoiding Another East-Timor Atrocity: The Fight for Indigenous Sovereignty and Self-Determination in West Papua

L. E.

Abstract The province of West Papua (also commonly known as Papua, Western New Guinea, Irian Jaya or West Irian) on the western mainland and surrounding islands of New Guinea is native land to 17 indigenous ethnicities. These ethnic groups are referred to as Papuan people, along with an additional 38 ethnicities in neighbouring Papa New Guinea (Elmslie, The Asia-Pacific Journal 15(2):6, 2017). The region of West Papua was officially recognised as Indonesian territory after the controversial 'Act of Free Choice' vote in 1969 (National Security Archive, Indonesia's 1969 takeover of West Papua not by 'free choice', Washington, D.C., 1–2, 2004). As the 50-year anniversary of the 1969 referendum approaches, the Papuan people's fight for independence is once again hot on the agenda. This essay will examine the fight for self-determination in West Papua up to its most recent developments. A comparison will also be drawn between East-Timor's 1999 independence from Indonesia. The main aim of this essay is to show that Papuan people have a right to sovereignty in West Papua and to highlight why their desire for self-determination should be supported by the international community. As West Papua edges closer to independence from Indonesia, necessary actions will be discussed in hope of avoiding another East-Timor-esque atrocity. This assignment is restricted to only utilising secondary research data; however, it is not limited to analysing transformative mixed methods research for the benefit of furthering social justice (Mertens, Qualitative Inquiry 16(6):469, 2010). Both qualitative and quantitative research data will be assessed to formulate the analysis.

Keywords Atrocity · Mining social and environmental injustice

The province of West Papua (also commonly known as Papua, Western New Guinea, Irian Jaya or West Irian) on the western mainland and surrounding islands of New Guinea is native land to 17 indigenous ethnicities. These ethnic groups are

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The authors choose not to be identified.

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Whilst there is still ongoing politicised debate over the indigeneity of many cultural and ethnic groups around the world, there is almost uniform agreement that Papuan people are indigenous to New Guinea (Coates 2004: 1). This understanding is paramount to the debate of indigenous people's right to self-determination. Scientific research suggests Papuan people, along with Australian Aboriginal people originated from the same African migration event approximately 72,000 years ago (Malaspinas et al. 2016). This widely accepted scientific evidence is to the advantage of the Papuan people, as it settles any argument relating to who occupied the land first. However, Papuan people are currently the anomaly in the expression, 'possession is nine-tenths of the law'.

Despite Indonesia gaining independence from the Netherlands in 1949, the former Netherlands East Indies region (West Papua) remained Dutch territory. After more than a decade of unsuccessful diplomacy in claiming the territory via the United Nations, Indonesia's first president, Sukarno, mobilised the Indonesian military and threatened to invade West Papua and annex it by force in 1961 (National Security Archive 2004). Subsequently, the United States sponsored talks between Indonesia and the Netherlands in 1962, during a tense time of military incursions into West Papua by Indonesia's armed forces. This leads to a diplomatic resolution between Indonesia and the Netherlands, known as the New York Agreement (1962).

As a condition of the agreement, Jakarta was obligated to conduct a United Nations assisted election on self-determination in West Papua prior to 1970. The agreement also stipulated that all Papuans had the right to participate in the election. Despite this, Indonesian officials selected 1022 Papuans to vote unanimously in favour of integration with Indonesia, in the ironically titled 'Act of Free Choice' between July and August in 1969. The United Nations disregarded significant evidence suggesting that Indonesia had failed to meet its international obligations under the agreement, and therefore, Indonesia was deemed victorious in annexing West Papua (National Security Archive 2004).

Since Indonesia took governance of West Papua in 1963, Papuan people have been subjected to over 50 documented major conflicts with Indonesian forces resulting in large-scale fatalities. Some of the worst acts of violence include a military operation in the central highlands of West Papua in 1981, in which Indonesian troops killed between 2500 and 13,000 Papuan people with Napalm and chemical weapons (Osborne 1985). The accumulative death toll as a result of Indonesia's occupation of the West Papua territory since 1962 is estimated to be as many as 500,000 Papuan lives (Webb-Gannon 2013).

In 2004, a comprehensive report prepared for the Indonesia Human Rights Network by the International Human Rights Clinic at Yale Law School found there was a strong indication the Indonesian government had committed genocide against the West Papuans, given the evidence available (Allard K. Lowenstein International Human Rights Clinic Yale Law School 2004: 1). This claim has more recently been supported in a report by Sydney University's Centre for Peace and Conflict Studies, suggesting that the case of West Papua is a 'slow-motion genocide' (Elmslie and Webb-Gannon 2013: 144). However, the Indonesian government has adamantly refused any claims of genocide or human rights violations against West Papuans (ABC News 2016).

Indonesia's controversial annexation of West Papua in 1969 has increasingly become under question from the international community, commonly being rephrased as the 'Act Of "No" Choice' among protesters (Wenda 2017a, b). In 2004, anti-apartheid activist Desmond Tutu urged the United Nations to review the discredited 1969 referendum, in which he stated, 'the people of West Papua have been denied their basic human rights, including their right to self-determination' (Unpo. org 2004). Tutu provoked more than 100 European parliamentarians and US senators, as well as many nongovernment organisations, to pressure the United Nations Secretary, General Kofi Annan, to consider a revote (National Security Archive 2004). Despite not resulting in any considerable action from the United Nations, such efforts have continued to raise support and awareness to the Free West Papua Campaign, spearheaded by exiled West Papuan independence leader Benny Wenda (Freewestpapua.org 2015).

On October 19, 2011, the Federal Republic of West Papua (FRWP) was established with the endorsement of 5000 senior tribal and church leaders, politicians and academics. The formation of the unrecognised sovereign state was met with fierce discontent by the Indonesian government. The organisation's President Forkorus Yaboisembut, Prime Minister Edison Waromi and three congress members were immediately charged with subversion and served 3-year prison sentences (dfat.federalrepublicofwestpapua.org 2017). Despite this major setback, the organisation was strengthened after the 3 year sentencing in 2014, with the formation of the United Liberation Movement for West Papua (ULMWP). The liberation movement united the Federal Republic of West Papua with the other two main political independence movements under a single umbrella (the National Parliament of West Papua and the West Papua National Coalition for Liberation). Having learned from the 2011 imprisonment of the Federal Republic of West Papua leaders, the Liberation Movement for West Papua was formed in Vanuatu, to protect the alliance from any Indonesian resistance (ulmwp.org 2016).

In addition to the Vanuatu Government's support, the liberation movement received the official support of an additional six other Pacific Island nations in March, 2017. Vanuatu's justice minister Ronald Warsal spoke at the United Nations Human Rights Council in Geneva, calling for an investigation into widespread human rights abuses in the Papua region on behalf of Vanuatu, Palau, Tonga, Nauru, Tuvalu, the Marshall Islands and Solomon Islands (Fox 2017).

Australia has made no serious official effort in condemning Indonesia over alleged human rights abuses in West Papua. Article 2 of the 2006 bilateral agreement on the framework for security cooperation between Australia and the Republic of Indonesia stipulates, 'mutual respect and support for the sovereignty, territorial integrity, national unity and political independence of each other, and also non-interference in the internal affairs of one another' (Agreement between Australia and the Republic of Indonesia on the Framework for Security Cooperation). In 1977, 2 Iroquois attack helicopters supplied by the Australian government and deployed by the Indonesia military and were involved in a genocidal operation which killed more than 4000 Papuans living in the central highlands of West Papua in under 2 years (Asian Human Rights Commission 2013).

Most recently, a major development in the fight for self-determination in West Papua is unfolding. On September 26, 2017, a petition of seismic proportion signed by 70.88% of West Papua's indigenous population requesting an internationally supervised vote for West Papuan self-determination was personally handed over to the United Nations Decolonisation Committee by West Papuan independence leaders of the United Liberation Movement for West Papua. Moreover, in an astonishing testament to the West Papuan people, the petition signed by 1.8 million people managed to circumvent Indonesian authorities despite Indonesian settlers comprising a remarkable 4.23% of the vote (United Liberation Movement for West Papua 2017).

Despite not sharing the same colonial history, the situation in West Papua shares many similarities with East-Timor's fight for independence from Indonesia. East-Timor unilaterally declared itself independent on November 28, 1975, after being abandoned by Portugal following the Carnation Revolution. Just 9 days after the state declared independence, Indonesia swooped in on the territory, executing a large-scale invasion involving land, sea and air operations. Unlike West Papua, the United Nations Security Council condemned Indonesia's invasion and called for all states to respect East-Timor's right to self-determination. However, Indonesia's invasion carried the support of Australia and the United States, and further action taken by the United Nations to redress the matter was blocked by the United States' power of veto (Robinson 2010: 174).

Indonesia's administration of East-Timor between 1975 and 1999 was drenched in violent conflicts between the Indonesians and Timorese. One of the most comprehensive inquiries into this time period, a 2800-page report compiled by the Commission for Reception, Truth and Reconciliation in East-Timor, estimates that up to one-third of East-Timor's preinvasion population were killed during Indonesia's occupation, between 102,800 and 180,000 people (Chega! The report of the Commission for Reception, Truth and Reconciliation in Timor-Leste (CAVR)

2005). Violent conflicts were apparent in the pre-ballot, voting and post-ballot stages of the United Nations-supervised referendum held on August 30, 1999. However, it was most widespread following the announcement that the Timorese people had overwhelmingly voted to reject special autonomy, resulting in the imminent separation from Indonesia (Robinson 2010: 175).

Similarly, in the case of East-Timor's independence in 1999, West Papua requires the backing of the wider international community to successfully lobby the United Nations for a supervised revote. As previously highlighted, the United Liberation Movement for West Papua has recently achieved great diplomatic progress in 2017. Having gathered support from seven Pacific Island nations is a huge leap forward; however, West Papua now requires the support of nations with larger influence such as Australia and the United States to move forward. This is a much larger hurdle for West Papua, given Australia's economically significant diplomatic ties with Indonesia, as well as lengthy mining leases and concessions granted to the United States in resource-rich New Guinea (Robinson 2010: 172).

The Australian government may continue to repress the situation in West Papua to maintain its sensitive relationship with Indonesia. However, as seen in the case of East-Timor within Australia and elsewhere, public policy ultimately reflects popular sentiment and public sympathy, in which the balance is beginning to shift (Elmslie and Webb-Gannon 2013: 144). The public are continually becoming more aware of the oppression in West Papua, as a result of the rise of independent and decentralised organisations, but more importantly, the public having increased access to cheaper, easier and faster access to information via the internet, smartphones and social media.

In the case of West Papua, Australia's relationship with Indonesia will inevitably suffer, as was the case with East-Timor. However, the support of the wider international community helped ease tensions and restabilise the relationship shortly after independence was achieved by the Timorese, making it undoubtedly the greatest foreign policy achievement of the Howard Government. Therefore, Australia could begin to lend its support to West Papua by reaffirming support for freedom of speech and making a formal apology for its historical role in supplying Indonesia with the two attack helicopters used to kill thousands of Papuan lives (Rollo 2013).

The international spokesperson for the United Liberation Movement for West Papua, Benny Wenda, believes the situation in West Papua is history repeating, suggesting that:

> Before the historic referendum in Timor-Leste (formerly East Timor), the Indonesian government and military systematically set up and armed militia groups to rampage across the country, killing people in an attempt to cause chaos. This is exactly what is now happening in now West Papua. Indonesia is trying to plant a time bomb in West Papua, creating more violence in order to justify their illegal occupation. (Wenda 2017a, b)

The United Nations has been handed the desire for self-determination by 1.8 million people of West Papua. International human rights lawyer Jennifer Robins believes that West Papuans have a legal right to self-determination; however, 'without the support of other countries, there are no effective legal mechanisms at the

international or domestic level that have both the jurisdiction to hear Papuan claims and the capacity to deliver justice' (Robinson 2010: 187). Therefore, the indigenous people of West Papua are relying on this petition to set the wheels in motion for an internationally supervised revote for self-determination, such was the opportunity granted to East-Timor. The West Papuan people have done their job; it is now up to the United Nations and the international community to do theirs.

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Part II
Examples of Multiple and Mixed Methods for Social and Environmental Justice

In this section *Kofi Quan-Baffour, Norma Romm and Janet McIntyre-Mills* develop a joint paper to explore the concept of 'ubuntu' by drawing on primary ethnography and qualitative data generated through an unfolding conversational dialogue. We also refer to secondary statistical data.

Keith Miller reflects on the narratives of indigenous stakeholders across nation states, and Jackwin Simbolan undertakes a mixed methods approach to water management in Nauli, Indonesia.

Finally, *Shajeda Aktar* develops an argument using multiple qualitative methods to inform an understanding of the statistics on women's empowerment in rural areas of Bangladesh, one of the most populous nation states, most affected by climate change.

Chapter 10
Ubuntu: A Dialogue on Connectedness, Environmental Protection and Education

Kofi Quan-Baffour, Norma R. A. Romm, and Janet McIntyre-Mills

Abstract In this chapter we discuss the concept of Ubuntu as a way of living, and we consider what it means to revitalise the principles of Ubuntu in relation to our human connectedness and sense of connectivity to all that exists. We discuss this in relation to some of our life experiences intermingled with the literature which we share with one another and with readers, in order to expand our (and our readers') understanding of the meaning of Ubuntu and its current relevance not only for Africa but worldwide. We consider implications for human relatedness across (created) borders and for environmental protection as part of caring for Mother Earth. We also discuss what this may mean, in terms of educational and vocational initiatives that we suggest (as part of our dialogue).

Keywords African heritage · Communal lifestyle · Empathy · Environmental sustainability · Spirituality · Educational opportunities

Introduction

This chapter is authored by Kofi Quan-Baffour, Janet McIntyre-Mills and Norma Romm, as we write around our engagement (in multiple sites and on various occasions) in relation to the concept of Ubuntu. Kofi was born and brought up in Ghana and was for many years head of the Department of Adult Education and Youth Development at the University of South Africa, having lived in South Africa for more than 20 years. Janet McIntyre was born in South Africa and has been living

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in Australia for the last 20 years, now at Flinders University working across disciplinary boundaries in the Torrens Resilience Institute that spans all the colleges at Flinders. Janet is currently located in Business, Government and Law as well as the Humanities and Social Sciences. Norma Romm was born in South Africa (and has worked in several countries, including Swaziland, the United Kingdom and Cyprus) and is now working in the Department of Adult Education and Youth Development at the University of South Africa.

This chapter is the result of a series of conversations that Janet, Kofi and Norma have held over several years on different occasions such as when Janet visited South Africa at the time of the 'Fees must Fall' campaign, where we discussed together educational options as part of a postgraduate symposium organised by UNISA in 2016 (see Quan-Baffour 2016, Podcast with Kofi, in McIntyre-Mills et al. 2017), and when Norma and Janet further discussed ideas (as part of the same visit) relating to social and environmental justice so that Norma could showcase Janet's work (2014, 2017) in her book on *Responsible Research Practice* (2018). Norma has visited Australia (2017) to continue discussions along this line; and Kofi and Janet together attended the African Studies Conference held in Adelaide in 2017. Kofi and Norma have also (of course) had numerous conversations around the theme of Ubuntu, not least towards an article that they wrote (2015) on using adult education processes to facilitate Ubuntu-inspired 'business' development in communities and towards a podcast that appeared on 'voice of literacy' (http://www.voiceofliteracy.org/posts/63144). In this chapter we start with Kofi's account of how he understands the concept of Ubuntu in the context of the theme of this book. We then proceed with a discussion that Janet and Norma held (and 'wrote up') in narrative form in this chapter, whilst we were together attending the Fourth Regional Mixed Methods Conference, 2017, in Indonesia. Further to this, we continue with Kofi's contribution around the praxis of Ubuntu, in relation also to environmental protection and education, which was informed by his looking at Janet and Norma's conversation.

Kofi's Understanding: Living with the Concept of Ubuntu

The concept *Ubuntu* which literally means humanness, love, compassion, respect and co-operation can be traced back to the traditional indigenous African societies living in the rural Southern Africa. *Ubuntu* originated from Nguni language family, which comprises Zulu, Xhosa, Swati and Ndebele (Poovan 2005). The term *Ubuntu* is found in many sub-Saharan African countries. It is equated with African communalism and humanism—the two values akin to virtues such as caring, sharing, hospitality, forgiveness, compassion, empathy, honesty, humility and co-operativeness. *Ubuntu* is seen as a traditional African concept which in English translation means 'humanity towards others'; 'I am because we are; a person becomes human through other persons'. It also means 'a person is a person because of other person' (Boaduo and Quan-Baffour 2011; Poovan 2005; Mbigi 1997). The concept *Ubuntu* as a philosophy portrays an African worldview of unity, respect, care and love for fellow

human beings no matter where they come from. The origin of *Ubuntu* developed along deep spiritual lines within the traditional indigenous African family system. The family system was described as 'vertical in that it included the living, the dead, and those unborn and the horizontal includes all living persons in the ethnic group, even though they reside in different families' (Goduka and Swandener 1999). Mandela (2006) describes *Ubuntu* as a philosophy constituting a universal truth, a way of life, which underpins an open society, but it does imply that they should look at whether what they are doing will enable or empower the community around them and help it improve. *Ubuntu* has become a way of life that [many] Africans believe in, trust and practice in their daily interaction with others (Poovan 2005). Broodryk (2002) argues that *Ubuntu* originated from a communal lifestyle. Traditionally, African rural communities lived together and shared symbiotic relationships with each other. They shared basic necessities such as shelter, land, farming implements, food and water. Broodryk (2002) and Mbigi and Maree (1995) share the common belief that the origin of *Ubuntu* lies in communities which were underprivileged, poor and could not survive on individual efforts alone.

Janet and Norma Deliberating on Our Understandings

Thank you Kofi for this overview of the concept and for sharing what it means to you in your personal praxis. Norma, what does Ubuntu mean to you? How has the concept evolved and how has it been used by different stakeholders?

Norma Growing up in South Africa, the concept of Ubuntu as I came to understand it was used in many contexts and also in part to critique apartheid. Activist Steve Biko used the concept to indicate and popularise an African way of living where people recognise one another's humanity and live a life that is relational. He used it in the context of Black consciousness and being proud of this African heritage (the Ubuntu philosophy) as part of a movement for Black pride. Bishop Desmond Tutu also used the concept, but more with the intent of criticising the way in which apartheid led to separation between people based on race constructions. When I was doing research for my book entitled *New Racism* (around 2006–2007), which was published in 2010 (Romm 2010), I examined how Ladson-Billings (an African American) drew on the concept of Ubuntu to speak about relational ways of knowing, where it is recognised that individuals are not the source of knowledge but rather knowing is a process of knowing together (creating visions together). Also as part of my research on new racism in South Africa (a form of racism that denigrates cultural traditions but in more subtle ways than in overt racism), I spoke about the concept with different people (Black and White) and realised (as I saw it then) that the concept of Ubuntu is associated with a cultural repertoire of developing human-to-human relationships. The idea was to strengthen an idea that 'I am because we are', implying that we are all interdependent as humans and that this is one of the ideas that we all can learn from African cultural traditions.

Though I was aware that Ubuntu when applied in practice could be associated with many ways of developing the idea of human connectedness, I was not initially aware of interpretations of Ubuntu that also stressed connectedness with all living and nonliving things. Later (when doing research for my book on *Responsible Research Practice*, 2014–2017, which was published in 2018), I came across different understandings of Ubuntu (e.g. as advanced by Bagele Chilisa 2012), which focus on relationality across the board (including our relations with 'all that exists'). I also became aware that some African scholars suggest that in order to focus on connectivity with all that exists, we may need to supplement the philosophy of Ubuntu with that of Ukama (as developed, e.g. within Shona traditions—see Murove 2005, 2007). However, still today there is contention around whether Ubuntu alone can provide (especially with some extrapolation) for connections with all living things. I know that you, Janet, feel that Desmond Tutu provides for this, especially now with climate change being a crucial issue that affects us all. The idea though is not to see the natural world as resources that we need to care for in order just for survival or ourselves and future generations but to see the natural world as having the right to expect our care, that is, we are supposed to be stewards not because it suits us but because we recognise the sacredness of Mother Earth. For example, Etieyebo suggests that:

> My primary interest is to make a case that Ubuntu promotes a much better attitude towards the environment or environmental sustainability than the current dominant ethical orientation that is welded to capitalism [treating humans and the environment as 'resources']. In realization of this motivation I hope to defend two claims: The first is that that there is a sense in which Ubuntu can be taken to espouse a non-anthropocentric ethic and worldview, and the second is that even if one assumes that Ubuntu is soldered to anthropocentrism, the values that flow from it foster a better attitude towards the environment and protect it much more robustly than those that flow from the present dominant "Western" individualistic system of capitalism. (2017: 633–634)

I know that you, Janet, have explored this idea extensively in your work on a non-anthropocentric ethic. Please tell me more about this in relation to your experiences with the philosophy and practice of Ubuntu.

Janet Thanks Norma—The concept of Ubuntu although never named was learned along with the principles of 'love your neighbour' taught in Sunday school and fostered by my mother's teaching (which veered quite far from the formal biblical texts) and emphasised her version of caring for people, plants and animals. As children we were encouraged to see that kindness to the voiceless was the essence of being a good human being. 'I am a pantheist' was her stock phrase which she linked with her version of Anglicanism which differed greatly from Christian National Education which permeated some of the school curriculum to which South African children were exposed.

I was introduced to the concept of Ubuntu when I started to work with indigenous healers in Guguletu, Section 3 in Cape Town, when I was doing research for my honours and MA thesis in the early 1980s (see McIntyre-Mills 2000; McIntyre-Mills and De Vries 2011) on health, healing and disease in a South African township.

The healing of displaced and dispossessed people seeking work was symbolised through the use of plants and making connection with nature through stages of a healing process that she led as a so-called diviner mother.

The idea that people lost connection with family when they were working in Cape Town was addressed through establishing bonds within the healing community that formed part of the diviner network. The members shared food and support at ceremonies in which people told their stories, sang and danced to polyrhythmic drumming which induced an altered state of consciousness in which they also reconnected with their ancestors. The term 'ukutwasa' means to be called by the ancestors who communicate across the divide between life and death. The reconnection with people past and present and the regeneration of health through remembering their connections is part of the process of healing (see Chaps. 2–4 in this volume and Chapters 5, 13 and 14 in Volume 2).

When researching towards my book *Planetary Passport* (McIntyre-Mills 2017), I learned that Tutu included connection with nature as part of the concept of Ubuntu, and when reading his dialogue with the Dalai Lama et al. (2015), I realised that he stressed the importance of extending human-to-human connections in a cosmopolitan manner to all citizens of the planet.

In *Planetary Passport*, I cite the case against the doctors who were complicit in the death of Steve Biko, the Black consciousness leader. He stressed the importance of Black pride as you have mentioned. Biko was assaulted at a police station in Port Elizabeth that I walked past every week when I visited the Walmer Library. Later his wife Mamphela Ramphele (a senior academic and then VC at UCT) also taught me for a while after she was released from detention as a banned citizen.

Now at UCT Xolela Mangcu cites Biko as being a very important thinker whose work needs more attention. His nuanced appreciation of both Biko and Mandela is not shared by some in the new student movements who think that more attention should be given to Black consciousness to keep alive the notion of discrimination even in post-apartheid South Africa.

The journalist, Jon Qwelane (Finnegan 1995: 140–141), explains that a noncharterist or separatist approach to striving for freedom is one aspect of Black consciousness. But according to Qwelane (who cites Tutu):

> BC is a 'very cerebral thing'. You need to … understand that being pro-black is not the same as being anti-white. So that has made BC somewhat elitist in its appeal.

This statement was cited by Qwelane to William Finnegan who was researching the role of the newspaper media during the Apartheid era whilst based at *The Star* newspaper. He stressed that the Black journalists risked their lives daily whilst reporting news that was often suppressed. Qwelane was incarcerated in Kwandebele whilst covering the time when people resisted being part of an imposed nationalist homeland. He witnessed torture and abuse whilst a prisoner which was reported in *The Star* as 'three days in a hell hole', only because it could be filed as part of a signed affidavit by three people as a criminal charge against the police (Finnegan 1995: 217).

Qwelane exposed the corruption of the police and some of the homeland officials along with the terrible death of a young child as part of reprisals. He carefully

unravelled the extent to which PW Botha knew about the events which Finnegan reported on (Finnegan 1995) and then reviewed later (Finnegan 1995: 234). Qwelane showed *Ubuntu* and patience in enabling Finnegan to undertake his research and risked his own life at times by associating with him, but he stressed (at that time) that he personally supported BC and believed that there was a place for Black organisations to strive for Black rights. He did not see this as contradictory.

Recently at the African Studies Conference in Adelaide, South Australia (November 2017), Dorothy Driver as key note speaker stressed the increase in 'us/them' thinking in South Africa which seems to have taken a step away from the 'rainbow nation' philosophy developed by Mandela, because of disappointment in the continued unemployment and lack of educational opportunities.

The rise in poverty, competition for resources and increasing problems associated with service delivery in a context of urbanization, rising food, energy and water costs gives a sense of anger of those who feel not much has changed in South Africa. Education, housing, land and jobs are central issues. Political leaders now highlight racial rather than class cleavages when discussing issues.

Norma Yes, this becomes a way of strengthening and reinforcing racial divides rather than locating the problems in elitist lifestyles and a capitalist mentality, that is, rather than reconsidering capitalist exploitation of people and the environment which are treated as resources to be used. As you have mentioned, Janet, Bishop Desmond Tutu and the Dalai Lama use the concept of Ubuntu in conversation (recorded by an editor) to refocus attention on the potential for solidarity with all people, and in their recent book (2015), they stress that joy comes from connecting with others.

Recently, as you mentioned to me, Janet, in our earlier conversations, Tutu has emphasised that it also means communion across people and nature and that these connections and the regeneration of connections is important to prevent climate change worsening. That is, the concept of Ubuntu can of course evolve, and we can highlight and carry forward different aspects of 'it' in terms of what we wish to stress at any point in time. Quan-Baffour and Romm (2015) note how Ubuntu is not easily definable, and we suggest that it can be used to focus on revitalising African traditions which stress connectivity with humans (on intra-community and inter-community levels) and a connectivity with nature, which is regarded as sacred. (See Quan-Baffour 2017; Romm 2015, 2017a, b, 2018.) Adyanga and Romm (2017) commented on research undertaken with elders in a remote community in Mpumalanga, South Africa, at the confluence of Mozambique and Swaziland. Interestingly the elders (and others interviewed) indicated that they do not identify as citizen of any of the countries but as citizens of all—as they define their identity in relation to the relationship that they have with relatives across what they regarded as artificial national borders. They have a more 'regional' consciousness, which is also what Ubuntu stresses (as they understand it).

Furthermore, many of the people who participated in the research (elders from the community and school teachers from various primary schools in the community) stressed that indigenous knowledge systems do not separate out different

'disciplines' of thought, because the knowledge spans, for example, dance, spirituality, environmental protection, medicinal practices and animal and crop husbandry. In relation to the land, one elder expressed that:

> So, our ancestors lived on this land and we inherited it from them with the ways [knowledge] to make this land productive and regenerative for many generations ahead. The ways to make this land regenerative is what I will talk about here [in this interview] as knowledge. This knowledge is rooted in our culture and spiritual domain and it is our way of life (as cited in Adyanga and Romm 2017)

Also introducing spirituality into the conversation/interview, a female elder pointed to the sacredness of the King's forest situated in the middle of the village. She asserted:

> Look at that forest [pointing to the thick vegetation in the middle of the village], it is the King's forest. Since I was born, nobody except the King enters that forest, which he enters occasionally and during certain ceremonies. We are taught not to enter or gather fire woods from the forest and that any violation would be catastrophic and fatal. The forest is important to us, we can't abuse it, and because of this, we have enough rain for our crops and animals, we cultivate our land and have plenty of food. (as cited in Adyanga and Romm 2017)

These ideas, as noted by Adyanga and Romm (2017), can be capitalised upon incorporating Global Sustainable Development Goals (UN SDGs 2015) already at primary school level, where IK is tied to the livelihoods of local peoples as a product of a sustained process of creative thought and action within communities when local people struggle to deal with a continuously evolving set of challenges in their societies (cf. Yankah 2004). Teachers interviewed during this same research project indicated though that they were unsure of how this kind of knowing could be implemented by them as part of the school curriculum, even though the Department of Basic Education does try to encourage this (Adyanga and Romm 2017).

While, in the Kha Ri Gude mass literacy campaign in South Africa, which began in 2008, aimed primarily at providing literacy and numeracy to adults who had remained uneducated in the apartheid era, the curriculum was also directed at enhancing a consciousness of interconnectivity in solving and addressing issues tied to sustainable social and community development. Kha Ri Gude means in Tshivenda 'Let us learn'. This was chosen as the name of the campaign to give credibility to an otherwise marginalised language in South Africa. All workbooks for the campaign (which are in 11 official languages including Braille) carry this logo (Kha Ri Gude). For a detailed account of this campaign and the curriculum and the process of teaching 'literacy plus', please see McKay (2017b) and McKay and Romm (2019).

The point we wish to emphasise in this chapter is that the Kha Ri Gude workbooks try to encourage, inter alia, a recognition that rural development needs to be valorised so that 'food for Africa' (and for the world) can be created, in a sustainable fashion, and that skills training towards this needs to be encouraged. This needs to be encouraged in further education and training too.

Janet Yes, Norma, I met with Kofi Quan-Baffour last week, and we discussed the need for vocational educational training when we both gave papers in the same session at the African Studies Conference in Adelaide, South Australia. I stressed in

my paper that in South Africa, more opportunities need to be given to young people who face unemployment. A longer version of the paper is in Volume 2 subtitled 'Getting lost in the city'.

High rates of urbanization and unemployment are an issue globally as stressed in the 2014 revised UN Urbanization Report (2014). In Australia, unemployment is not as pervasive, but young people face more challenges today than other age cohorts in previous years.

Kofi talked about this theme of unemployment when I last visited UNISA in 2016 during the height of the #FeesMustFall campaign including at UNISA. We met in a restaurant, because we could not travel to campus due to the strikes. We agreed that it is important to recognise the frustration of young people and to exercise the restraint of the police.

Blade Nzimande, the then Minister of Education, stressed at the time that fees committees were being set up to discuss how fees could fall, but the issue is not only about high education costs but **also** the need to restructure educational systems to give more opportunities for training in rural areas. Students need to be awarded scholarships not just to attend urban universities but also to attend rural universities and training institutions that foster food, water and energy security through innovative regenerative living.

During the 'Rhodes must fall' campaign in 2016, the need to **decolonise** education was stressed. Much indigenous knowledge has indeed not received the recognition it deserves, and vocational education could regenerate some of the traditional ways of living in harmony with the environment.

In Australia the theme of 'caring for country' emphasises that indigenous First Nations know how to uphold the Law, namely, that people *are dependent upon the land*. We need to foster stewardship of the land and not stewardship of neo-liberal economies that profit from people and the land without giving thought about future generations of life. These details are addressed in various chapters in Volumes 1 and 2 in which I discuss key indigenous metaphors on regeneration (Arrernte Caterpillar dreaming story in Alice), drawing together many ways of knowing (Ngarrindjeri weaving strands of river grasses and cultural flows).[1]

Olive Veverbrandts set up the homestead which demonstrates how to live in harmony with nature and taught me about the dreaming story and how she descended from Arrernte mother who married Hong, the Chinese gardener. As a senior elder, her role was to educate me as an outsider who was doing research on quality of life in Alice Springs. Her dreaming is Chicken Hawk dreaming, because her mother saw the big picture and was able to make connections by rising high above the land and seeing the role of the different people in Alice with their particular strengths and failings. Her mother knew Olive Pink the social anthropologist who advocated for both the Arrernte people and the indigenous plants. She sets up the botanical garden in Alice Springs. Olive was named after her, and she said that she thought it was now her role to befriend me. We went together on one of my later trips to Alice to

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[1] Podcast of story of Alice

an opera in the local art centre called 'Fierce'—a play about the life of Olive Pink. Olive and I said how strange it was that the issues Olive Pink addressed remained as relevant at that time as they are today (Aikman 2017).

The issue of marginalisation of Aboriginal people in Alice has increased, rather than decreased in recent years as urbanization increases and the issue of land rights remains unresolved. We need to understand that the longer Australia holds out on recognition and treaty, the more people will wish to stress identity politics.

But as Rawls (1999) has stressed, 'identity politics' (where people organise politically on the basis of social groupings that are identified for strategic purposes) needs to be addressed alongside practical issues of class—jobs and security. I would add that the practical issues are now shared by more and more people as the divides between rich and poor grow locally and internationally. The danger of identity politics is that divided thinking can be fostered by those who face daily struggles, instead of understanding that poverty and climate change are cosmopolitan concerns of the 99% of the population.

This is why the work of Tutu and the Dalai Lama are so important in stressing that we are global citizens who could and should work together to secure the well-being of people and the planet.

This is consistent with my experiences with indigenous peoples in a range of contexts such as Kim O Donnell, La Donna Harris, Olive Veverbrandts and Peter Turner as cited in Chaps. 3 and 4, where I explained how they became mentors for me. These ideas as expressed by various indigenous scholars across the globe are also cited by Romm in a chapter in a handbook on theoretical perspectives on Indigenous Knowledge Systems (Romm 2017b). La Donna Harris and Wasilewski sum up that ultimately:

> Our strength is increased by sharing [in the process of developing communal wisdom]. We can affirm our view, expand our view, or sometimes alter or even give up our current view when we encounter a new one. We can also allow others to have contrastive views as long as they do not impose their views on us and vice versa. (Harris and Wasilewski 2004: 498)

This plea is made in the context of recognising that our fates are interconnected with one another and with Mother Earth; hence they exhort that 'we need to establish respectful, caring relationships of responsibility with each other' (p. 499) (Fig. 10.1).

Furthermore, Keith Miller in his chapter in this volume stresses the way in which indigenous people with whom he has worked in a research context stress solidarity and mutuality because he is able to model postcolonial values in building research praxis.

Solidarity with people within and beyond our own neighbourhood goes beyond mere tolerance. This was the subject of a discussion between Habermas and Derrida (Borradori 2003) in which Derrida stresses that tolerance of people who are non-citizens does not go far enough and that hospitality needs to be extended to those who are asylum seekers, refugees, temporary residents or visitors. Obviously competition for resources in resource-poor areas will need to be carefully managed.
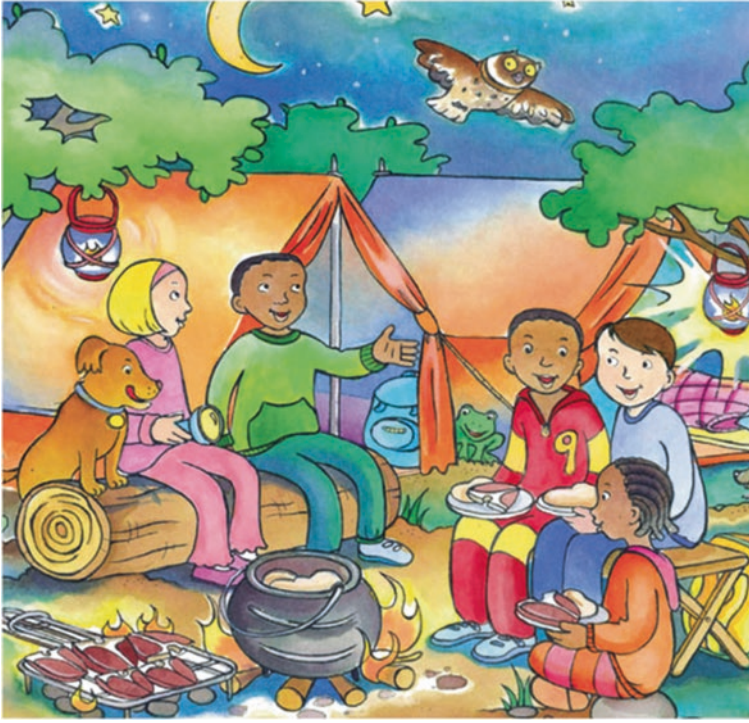
Fig. 10.1 City children need to meet with urban-based children and eco-tourism visitors in order to connect with nature and with one another. Learning to connect is part of a so-called parallel curriculum. Source: McKay 2017a: 110 in 'Balancing Individualism and Collectivism' (McIntyre-Mills et al. 2017)

The dire situation in the Western Cape (January, 2018) is a case in point, where there is inadequate water for the existing population. The philosophy of a cosmopolitan approach is illustrated through the rainbow nation approach which could be extended to solidarity within and beyond the borders of South Africa. As climate change places pressure on people and animals, displacement becomes a way of life that needs to be addressed responsively through new forms of democracy and governance that protect diversity.

Veronica McKay as CEO from 2008 to 2012 of the mass literacy Kha Ri Gude campaign in South Africa (which ran from 2008 to 2016—see McKay 2017b, McKay and Romm 2019) demonstrates and tries to nurture this praxis of creating solidarity across social groupings through her work on the workbooks to promote literacy through the 'let us learn' campaign. The workbooks (in South Africa's 11 official languages) have pictures and exercises asking (adult) learners to consider their connectivity to others and to the land (Mother Earth) (Fig. 10.2).

Fig. 10.2 Source: Kha Ri Gude workbooks created for the campaign (author Veronica McKay; artist Jacques Coetzer)

Those who are our neighbours and who need our help may be within South Africa or in neighbouring countries. This is a message that can only be fostered when there is respect for other people who are not necessarily the same (in whatever way 'sameness' is defined). The Ubuntu principle needs to be applied within and beyond our immediate neighbourhood. This is the starting point of the lesson for South African students.

The parallel curriculum, as McKay calls it when speaking about a project which she also co-ordinated for school children (see McKay 2017a) is to promote gender mainstreaming, UN Development Goals and greater solidarity in line with the rainbow nation that honours the solidarity of all people within South Africa. Ubuntu implies caring for people and the land, and this is modelled through the lessons that show the importance of caring for all sentient beings, the land and our neighbours within South Africa and in neighbouring countries. Xenophobia needs to be addressed through raising awareness but also through ensuring that all levels of society support social and environmental justice.

The challenge for people is to connect not only with their immediate neighbours within the boundaries of one nation but also those within neighbouring nation states. The notion of rainbow nation posited by Mandela needs to be extended to enable solidarity with displaced people who face the challenges of social and natural disasters. With the election of Cyril Ramaphosa to the ANC leadership (December 2018), a return to the values of 'the rainbow nation' is hopefully symbolised by a visit on 10th January to the graves of ANC ancestors (Sidimba and Feketha 2017) including Mandela, who appointed Ramaphosa as the chair of the Constitutional Committee that created South Africa's groundbreaking human rights-based constitution. We now proceed to highlight Kofi's account of Ubuntu in relation to 'human service' as well as environmental protection (and links to educational initiatives) (Figs. 10.3 and 10.4).

Fast paced, 'hyped up life styles' are as problematic as isolated rural spaces without infrastructure and services. Connecting with people and places is vital for sustaining a sense of Ubuntu. For example, some fruit famers of the Western Cape arguably demonstrated a sense of Ubuntu on the 5th of February 2018 by donating their water supply to the municipality of Cape Town, which faced the worst drought in more than 300 years of recorded history. In this way they helped to stave off the day the city was scheduled to run dry. At the time of writing, this date had been pushed back from 12th of April to the 11th of May (Figs. 10.5 and 10.6).[2]

In relation to these pictures, a discussion on women as farmers needs to be accompanied by a discussion on what their empowerment would require in terms of support, representation in discussions on land ownership and/or management, equitable time and effort contributed to work, fair distribution of resources and the right to decide on how the earnings are spent. These aspects of gender mainstreaming are discussed in more detail in the companion Volume 2, Chapters 5 and 8. This gender mainstreaming approach is also central to a new, revised, form of Ubuntu.

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[2] https://www.news24.com/SouthAfrica/News/fruit-farmers-opening-sluices-for-cape-town-20180205#cxrecs_s

Fig. 10.3 Generating awareness of xenophobia. Source: Kha Ri Gude workbooks created for the campaign (author Veronica McKay; artist Jacques Coetzer)

Instead of a dystopia based on rapid urbanization, a better balance between rural and urban area is needed. Green spaces are better for engaging with other people and with living systems (Fig. 10.7).

In this picture, the role of women as farmers is again stressed. This is discussed in more detail in Volume, 'Democracy and Governance for Resourcing the commons: theory and practice on rural-urban balance'.

Fig. 10.4 Fast- or hyper-living pace in a hostile city environment does not foster Ubuntu. Note the lack of shared spaces. Source: Kha Ri Gude workbooks created for the campaign (author Veronica McKay; artist Jacques Coetzer)

Fig. 10.5 Pollution through carbon emissions and lack of management to secure safe water, sanitation and waste. Source: Kha Ri Gude workbooks created for the campaign (author Veronica McKay; artist Jacques Coetzer)

Fig. 10.6 The importance of farmers (both women and men) is stressed. Source: Kha Ri Gude workbooks created for the campaign (author Veronica McKay; artist Jacques Coetzer)

Fig. 10.7 In this picture women farmers are foregrounded. Source: Kha Ri Gude workbooks created for the campaign (author Veronica McKay; artist Jacques Coetzer)

Kofi's Understanding and Praxis of Ubuntu: Environmental Protection and Education for the Youth Development

To me Ubuntu is service to fellow humans. You can assist your fellow humans only when you have love, compassion and respect and ready to share what you have with them. Born to Christian peasant farmers, I grew up in a rural close-knit community in Midwest Ghana. I remember as a primary school pupil whenever I returned from school, my mom would ask me 'how was school and what good or service did you do to anyone today?' As a child, I did not know that by her questions, mama was instilling in me the practice of *Ubuntu*; no wonder in later years, I adopted humanism as my philosophy of life. From childhood, I learnt to assist others in a variety of ways. The inclination to humanism dictated my choice of career in education for development. I trained first as a school psychologist (guidance counsellor) and later did postgraduate courses in adult education in order to be able to assist both the youth and adults in using education as a tool for development. Two philosophers, whose works have great impact on my practice of *Ubuntu*, are Karl Rogers and Paulo Freire. Rogers' teaching of empathy is in line with *Ubuntu* in practice; one cannot assist or guide adolescents and teenagers with social problems such as learning difficulties emanating from poor backgrounds without love and empathy. For 20 years I taught and worked with high school students in Ghana, Lesotho,

Botswana and South Africa in their choice of career, handling of social problems such as drugs, alcohol, teenage pregnancies and school dropouts. Being an educator from a very humble and illiterate background, I knew much of the challenges that hindered the development of rural pupils and heeded the call to make a difference in their lives. I visited homes of students who bunk classes and also to see if those who attended classes did their homework. I endeared myself with students' and won their trust and confidence to the extent that I was able to foil planned violent demonstrations in the schools I taught in the former homeland of Bophuthatswana.

As an adult educator, I was influenced by the teachings of Paulo Freire, the Brazilian adult educator who used education to fight social injustices among rural farm workers. His book on the pedagogy of the oppressed and the philosophy of critical pedagogy were in line with my passion to assist the poor and illiterate rural adults who desperately needed basic education (literacy) skills for livelihood. I was first appointed as organiser of adult learning programmes in Ghana in 1984 with the responsibility to organise formal courses for the youth and adults who dropped out of school or were employed and wanted to improve their qualifications.

I also organised non-formal education programmes for rural community members on the protection of the environment (e.g. forming village fire committees to stop bush fires which destroyed farms and livelihoods) and family planning for women to space birth and reduce STDs. Although I am a male, I joined the Christian Mothers' Association of the Catholic Church in order to get the opportunity to equip its members with basic education and skills which they could use to enhance their livelihoods. The unemployed and illiterate members of the association in the Parishes under the Techiman Diocese were trained to make hair and body creams, candles and doormats for self-employment.

Although now a full-time academic with huge administrative responsibilities, I make time available to mentor junior colleagues to improve their qualifications and lecturing and research skills. I serve on Peace and Justice Committee of the Diocese of Pretoria to ensure justice to the poor and vulnerable members of the Catholic faith. *Ubuntu* is my way of life, and I do not care for or support people in need for gratitude. It is service to humankind to make a difference in the lives of people.

African sages draw on cultural beliefs and their value of human co-existence and interdependence. The principles of Ubuntu indicate that no individual is an island unto himself or no individual can be self-sufficient in everything. The practice of Ubuntu can bring harmony, peaceful co-existence, co-operation and compassion for the vulnerable members of the African society. It will assist South Africa to recognise each other's differences and the advantage of unity in diversity. African values include the practice and acceptance of hospitality as a way of rebuilding our communities, e.g. socio-economic support for each other. Waghid (2013) suggests that Ubuntu is the art of empathic listening and responding compassionately to people's often miserable and troubled lives so that we can look to our culture for solution to Africa's problems. As humans we lead gregarious lives where we are connected to others and the general physical environment. As we are connected to others, we need to practice Ubuntu because a person is a person through other persons and no one is an island unto himself. None of us comes into the world fully formed. We would not know how to think, to walk or speak or behave as human beings unless

we learned it from other human beings. We need other human beings in order to be human (Tutu 2004). This is an affirmation of the fact that one is a human being because of being with other human beings. Indeed without others we cease to be human. Human life is defined in terms of our relationship with others, hence the need to assist, co-operate, share, love, respect and have compassion for others in order to ensure peaceful co-existence. Even under traditional African governance provisions, respect, dignity, caring and sharing are considered critical values that build African communities (Bekker 2006; Poovan et al. 2006). The fundamentals of sharing are prevalent in African values. The *Ubuntu* philosophy implies that one can only increase one's good fortune by sharing with other members of the society and thereby also enhancing their status within the local communities (Broodryk 2005).

Louw (2006) asserts that *Ubuntu* inspires us to expose ourselves to others; to encounter the differences of their humanness, so as to inform and enrich our own. To be human is to affirm one's humanity by recognising the humanity of others in its infinite variety of content and form (Quan-Baffour 2014).

The humanness in *Ubuntu* is beautifully described in Xhosa in the following words '*umuntu ngumutu nyabanye abanutu*' (*a person is a person through other people*). This proverb illustrates how an African is anchored with a community and connected to the members of the community (Poovan 2005). In other words, if we are to be human, then we need to recognise the genuine otherness of our fellow citizens and acknowledge the diversity of backgrounds, languages, histories, skills, values and customs, all of which constitute the African society (Louw 2006). The individual is not just a social being but a being inseparable from the community. Individuals are born into the community, and they are physically, spiritually, emotionally attached to the community and will also remain part of that community till death. The practice of *Ubuntu* is epitomised in community, national and global solidarity, co-operation, connectedness, humanness, unconditional acceptance, empathy, appreciation, compassion, love, human feeling, remorse and forgiveness.

The attributes of *Ubuntu* show that an African society, which is humanist in nature, is also more community-based and socialist than Western society. The positive attributes of *Ubuntu* also demonstrate what individuals and their communities can gain in terms of understanding the seriousness of embracing a corporate conscience that is in line with African society. African culture is very different from Western cultures in some ways which implies that in an African framework, social and cultural linkages are considered to be key determining factor for the advancement of communities.

Ubuntu and Environmental Protection

The *Ubuntu* principle of caring should not be limited to humans only but must be extended to the physical environment which supports life. Humans and indeed all living things live and interact in the physical environment. Humans therefore have the moral responsibility to care for the environment to reduce pollution and protect

land, trees, forests, soil, rivers and animals for the sustainable use of all natural resources, some of which cannot be replaced. Educators, particularly adult educators, have the duty to educate the rural folks whose livelihoods depend on the physical environment to care for and use it sustainably. This education can take many forms—formal, non-formal and informal—to make people aware of effect of their activities on the environment and their role in reducing the negative impact of human activities on the land on which life depends. Educators should tap on indigenous or traditional values as resources to teach local rural communities about their role in caring for the land and all that dwell on it. The indigenous ways of land conservation as espoused by the cultural people of Bono Takyiman in Ghana is a case in point (Quan-Baffour 2017). The protection of physical environment may not only enhance rural livelihoods but can also have positive impact on climate change. Waghid (2013) reports how Wangari Maathai who, through the Green Belt Movement, helped Kenyan communities to plant trees and by so doing contributed towards improving their livelihoods, protecting the environment and increasing their commitment to justice, wealth, peace and respect, a matter of exercising *Ubuntu*. The ethnic conflicts in some African countries that have caused internal displaced people have affected people's livelihoods in Chad, Somalia, North East Nigeria, Mali, Burundi, Sudan and Eastern DRC. To restore dignity and livelihood to the people, mediators need to emphasise the African values of protecting the physical environment, human lives, compassion, forgiveness, peace, co-operation and sharing. African life of sharing emphasises the interdependence of human beings. In many African farming communities, one does not need to worry about how to cultivate the land for farming or harvesting of farm produce. The community members take turns to assist each farmer to clear the land, sow and harvest. The community always unites to increase food production. In the same way, food is shared with those who do not have it at a particular time (Quan-Baffour and Lebeloane 2008).

It is here argued that the idea of community is the heart of traditional African thinking about humanity because no man is an island unto himself or self-sufficient in everything. A person depends on others to develop and fulfil his or her humanness and livelihood. This indicates that our humanity is inextricably bound or caught up with others. *Ubuntu* (love, compassion, humanness, forgiveness, co-operation, sharing, etc.) is the cornerstone of community building and national advancement. Many people are greedy, self-centred and cruel because they do not understand or subscribe to *Ubuntu*. Bad governance, greed, selfishness, nepotism and conflicts could dispossess people of their God-given land, and without land millions of rural people cannot eke out their livelihoods.

Ubuntu and Youth Development

The *Ubuntu* principle of care can also be extended to the development of the youth who lack basic education and training for participation in community and national development. They are the nation's future which is why the country should care for

them. In the opinion of Waghid (2013), in order for respect for persons and humanism to occur, *Ubuntu* implies that acknowledging humanity within another, acting justly and responsibility towards that person regarding his or her vulnerability and actually doing something about changing an undesirable situation are some of the ways to achieve *Ubuntu*. There are many school dropouts in our midst as well as those who have completed matric but lack employable skills. Education authorities, communities, educators and civil organisations should come together to design technical and vocational education (TVET) curriculum and courses for the unemployed youth. The practical education and training in welding, plumbing, weaving, sewing, fitting, building, painting, electrical works, sculpturing and painting can equip the youth with skills for self-employment. This will go a long way to reduce unemployment, poverty and violent crime in all communities in South Africa. It will also indicate how society really cares for its young citizens. Without a practical intervention in the plight of the youth, no amount of rhetoric and preaching can assist the youth of South Africa to get out of the socio-economic quagmire in which they find themselves and all citizens will continue to suffer the consequences, in one way or the other, of lack of compassion and care for the youth.

A Note on the Andragogical Approach to Teaching

Janet Kofi, please explain what is meant by andragogical interaction applied to teaching (which I have heard you talk about in various contexts).

Kofi Knowles (1990) considers that as part of andragogical interaction, an adult educator should have empathy (put themselves in the shoes of learners) and understanding and become aware of capabilities of the adult learners. The term Andragogy simply refers to the science of teaching or helping adults to learn. The term is rooted in the characteristics of adult learners. The andragogical approach to teaching, as adapted from Knowles (1990), is therefore premised on the following assumptions:

Motivation to Learn

Adults are self-motivated and need to know why they need to learn a particular thing. They are therefore motivated to learn as they experience needs and interests that learning can satisfy or bring to them. The curriculum for educating and training of the youth (adults) should be built around the felt needs and interests of the learners.

Orientation to Learning

Adults' orientation to learning is life-centred; hence the most appropriate ways to organise adult learning are life situations (which relate to people's life experiences) and not subjects (i.e. 'academic' subjects).

Experience

The best resource of adult learners is experience which is why adult educators should tap from the experiences of the learners during teaching or facilitation to maximise learning. Experience is the best teacher. In summary:

Adults are self-directed and do not need rigid control of the learning process and the environment. The educator should only guide and facilitate learning and not dominate or rigidly control participants and the process of learning. Learning is a process of active inquiry and not passive reception of transmitted content. Therefore, for effective learning to occur in adults, they should be engaged in active inquiry, and not be passive recipients of information.

Individual differences need to be appreciated. As people grow their individual differences increase (with age). Adult educators should therefore take cognizance of individual learning styles and the pace of learning among adult learners in order to assist them to succeed in their learning efforts.

Greene (1995) posits that to acknowledge humanity in learners involves treating learners as active participants in the learning process and not simply as passive recipients of predetermined information. Dewey (1938) likewise explains experience as a classroom practice that leads to patterns of action that constitute the basis of organic learning.

What is important, then, is that our classrooms (for adult learners and indeed for other learners too) ought to be nurturing and thoughtful; they ought to pulsate with multiple conceptions of what is to be human and alive (Greene 1995). Educators should assist their students to achieve friendship by working cooperatively with the classroom educators and students through sharing 'marked by an emerging solidarity, but also welcoming newcomers (Greene 1995).Working co-operatively assists educators and learners to establish a community of learning. Behaviour of teachers both in classroom, in the school, and outside school, in the community, can serve as examples for both children and community members. Teachers should learn to practise *Ubuntu*, as an African philosophy which acknowledges humanity.

Adults, i.e. educators, parents, civil society and government, should show group solidarity with the youth and equip the future leaders with relevant knowledge and skills to enable them earn a living and contribute to nation-building. *Ubuntu*-inspired education dictates the sharing of burdens (lack of education and skills, unemployment and poverty) of the youth during hard times, because through sharing the burden, suffering can be diminished. The *Ubuntu* approach to life enables people to express continued compassion and perseverance within communities (Khomba and Kangaude-Ulaya 2013: 676) towards the plight of the youth. African education and training as grounded on compassion should therefore use the *Ubuntu* philosophy with its original good intentions. Its application to youth development should be in harmony with the good education principles of the country. In most parts of the sub-Saharan Africa, traditional heritage reflects the cultural norms of working together, developing a sense of co-operation and helping one another in times of adversity and prosperity. Supporting the family is a symbol of solidarity, and the interests of the family are always a priority

(Mwenda and Muuka 2004: 143–158). Thus, if education and training can function as a kind of community or family, African values can be harnessed through the development of that sense of honour and good relationships with the youth as learners and family members of the community.

Social obligations as outlined above can have a direct impact on the development of the youth at the community and national levels.

Revisiting and Revitalising the Principles of Ubuntu

If the principles of *Ubuntu* are not properly used, the claims of *Ubuntu* can create negative connotations, especially where people say they are applying the philosophy whilst their actual practice is divorced from the principles of good education for their youth. This is often observed in the new South Africa where the African value of compassion is very limited in practice. The *Ubuntu* philosophy encourages people to recognise others and work hard within their communities as a team to promote development and social cohesion. As Waghid (2013) intimates, *Ubuntu* is linked to humanness and harmonious communal relations among Africa's peoples. It is a philosophical concept that forms the basis of communal human relationships and ethical conduct. *Ubuntu* advocates what is morally good to be done for individual fellow man and community. Humans are gregarious, and the wellbeing of people depends on the effort (e.g. compassion, forgiveness, humility, love, co-operation, empathy, generosity and support) of others. The Akan say no individual's hands alone can embrace the baobab tree. The success of anyone depends on the support from the community of which she/he is a member. *Ubuntu* requires community members to work towards the advancement of individuals and the entire community. *Ubuntu* is a practice of generosity, compassion and support for the needy and vulnerable in our communities.

Waghid (2013: 422) points out that the genres of African Philosophy of Education are those intellectual thinking patterns that are informed through cultural practices as well as the thinking patterns that informed the practices themselves. Education ought to involve engaging (through conversation, dialogue, debate or deliberation) ways in which people share thoughts about their traditions and practices such as oral narratives, folklore, cultural artefacts and music. Education in the African sense ought to involve processes whereby works about the African experience are interrogated, compared and contrasted; this is a matter of pursuing critical argumentation and national deliberation about the African experience. African philosophy assists the African people to explore and understand their intellectual, spiritual, cultural, economic, political and social contributions to uplifting humanity (Waghid 2013). African Philosophy of Education explores the lives of African communities and their situations. African philosophy is a mode of intellectual enquiry, reasonable, deliberative and moral. It relates to the action people take to improve their lives and the lives of others in their communities. It is a moral code that demands compassion and co-operation for and from community members to enable them to

move forward through supportive mechanisms. Africans need to entrench the practice of *Ubuntu* in their relationship with fellow human beings. The starting point is through curriculum transformation. Right from primary school to tertiary education, African children and youth should be taught African values enshrined in *Ubuntu* if we are to revive its practice. When *Ubuntu* is made part of the school curriculum, people will learn its principles and practise them, even when they leave school and start work. The lack of concerted effort to make it part of the formal education curriculum can be seen as one reason why people pay lip service to *Ubuntu* or do not even know about it.

Janet   Yes, Kofi, the notion of embedding it within the curriculum at school is a good idea. (See also in this regard McKay 2017a.) This could be an important place to start so that Ubuntu becomes a way to develop opportunities for school children and their family members in South Africa. Furthermore, if we could link each school with the public, private and NGO sectors, then we could match skills with opportunities in a case working approach supported by a software programme called 'pathways to wellbeing'. (See McIntyre-Mills 2014.)

It seems to me that job creation through protecting the environment could be a place to start. Multiple sites could become nodes within a learning community that supports all age groups. The overloading of universities could be addressed through making opportunities for training people to become talented builders, farmers, plumbers and electricians, and they could be mentored by retirees who could be given a sense of purpose through serving others. But also the notion of public education beyond the school would help. The 'schools without walls', 'learning community' and 'community of practice concept' (Senge 2006; Wenger et al. 2009) could support public vocational education and capacity building.

Norma   Janet, please elaborate on what you mean by 'public education'? What do you perceive as being some mechanisms by which this could be accomplished?

Public Health Education to Address Unemployment by Supporting Vocational Educational Training

Public health education needs to be fostered through practical engagement linked with job creation and employment with a focus on gender mainstreaming to ensure that people understand and are aware of the transmission risks for a range of illnesses associated with being HIV-positive, such as tuberculosis along with opportunities for families to establish regular forms of income. The development of vocational education and training in thinking and practice to support the cascade economy could be supported by public engagement in line with the UN SDGs (2015) to address poverty and enhance opportunities for women and children. Food, water and energy security can be supported by means of practical projects such as:

(a) Growing organic vegetables in gardens prepared in grounds donated to the schools and governed through a carefully run co-operative organisation. The board could include the school, local government, NGOs and appropriate businesses.

(b) The vegetables could be watered through rain harvesting and grey water systems. Value adding through processing and packaging and marketing could be managed by committees and supported by business and vocational training under the auspices of properly managed co-operatives linked with vocational training.

(c) Energy security could be fostered by using vegetable waste processed in biodigesters to power electricity to cook food served in community restaurant and supported by other forms of sustainable energy when the co-op is able to afford to install solar panels. Points could be awarded to parents who bring their sorted rubbish to a processing plant run through a co-operative supported by local government and in collaboration with the local school, clinic and NGOs. The point system could be advertised by local government, libraries and the media. Public education needs to be seen to lead to tangible outcomes for busy working class people or people seeking work. The point system has worked effectively as discussed in Volume 2 in which the allocation of points in Alam Endah (meaning beautiful place in West Java, Indonesia) demonstrates how recycling can be managed as part of a public education system, health system and community co-operative. A great deal of waste occurs as a result of not sorting and reusing rubbish, and incomes could be generated by schools and vocational training for children and their families. Intergenerational learning, respectful dialogue and gender mainstreaming could be modelled through these projects. Thus public education needs to be praxis-oriented around income-generating projects that support people and the environment.

Public education should be about hands-on learning and practical with immediate benefits for preventing HIV and AIDS[3] through gender mainstreaming with isolated and destitute people of all ages. People who spend time helping students grow vegetables should receive a meal if that is how they need to use their points. The points system should be allocated to ensure that people who do not need the income can donate their time and money as part of a donation to the community restaurant and food barn. Donated points need to be counted and noted anonymously or as named ecological citizens (if they choose to be part of the points system), so that each year an honour roll can be called for those who have served the community. This can model a new form of status, namely, people who demonstrate caring for people and the environment.

Parents of children at primary and secondary schools could be actively engaged in activities that are rewarded through a transparently managed points system that translates time spent on social, economic and environmental wellbeing activities measured by their own personal pathways to wellbeing score card that can be used

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[3] The extent of HIV and Aids infection is likely to increase given the high rates of infection in countries to the North, such as Zambia Country Report (2014).

as a digital record or kept as a personal paper-based record (McIntyre-Mills et al. 2014; McIntyre-Mills 2017). These contributions can then be converted every 2 weeks into tangible income. Triple bottom-line accounting and accountability (Elkington 1997) could be supported by teaching young people to identify social, economic and environmental factors that support their personal wellbeing and the wellbeing of their families and communities. They will be asked to consider what they have and what they need to support 'wellbeing stocks' (Stiglitz et al. (2010: 15) spanning:

> 1. Material living standards (income, consumption and wealth), 2. Health, 3. Education, 4. Personal activities including work, 5. Political voice and governance, 6. Social connections and relationships, 7. Environment (present and future conditions), 8. Insecurity, of an economy as well as a physical nature.[4]

Schools could support community gardening as part of a community co-operative organisation geared to creating employment for students and their families. A focus on food, water and energy security could be enabled by teaching a practical curriculum that enables students to grow, develop and market products. Value could be added by enabling students to work with the public, private and volunteer sectors to package and promote the goods or to provide processed foods in food barns and commercial outlets that enable the school community to benefit in ways that are transparently recorded on the pathways to wellbeing website (McIntyre-Mills et al. 2014; McIntyre-Mills 2017).

The local government could award annual honours, and these could be listed for each provincial region.

A cascade economy (Pauli 2010) means that sources of abundance are supported without wasting resources or opportunities. Recycling, reusing and redesigning become a focus for creativity and employment as many forms of intelligence can be fostered through arts, sciences and technical learning.

Primary and secondary schools could be supported by universities, training colleges and technical colleges to enable young people to develop social, economic and environmental transformation with their parents, extended family and wider communities. This is what I mean by public education based on learning by being, doing, having responsibility and interacting in ways that regenerate and redistribute through supporting the activities and learning programme.

Co-operatives cannot work unless they lead to tangible, transparent earning opportunities. Boards need to be carefully scrutinised and run by accountants who apply triple bottom-line accounting using the pathways to wellbeing freeware so that all the activities of the participants are transparent.

By addressing the first of the Sustainable Development Goals, namely, to end poverty, students could apply a range of skills to support food, energy and water security in ways that are respectful to people and the living systems on which we depend. In the process they could learn valuable living skills such as gender mainstreaming opportunities and learning to work collaboratively irrespective of

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[4] See also McIntyre-Mills, Chaps. 2–3 and 12 of this volume.

age, gender, disability or cultural diversity. Capabilities[5] (Nussbaum 2011) to live a life worth living could be learned through a practical, applied curriculum that supports living ethically and well (McIntyre-Mills 2014) in ways that protect the most marginalised, including the voiceless and those whose voices are not under-

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[5] Nussbaum refers to 10 capabilities:

1. **Life**. 'Being able to the end of a human life of normal length; not dying prematurely, or before one's life is so reduced as to be not worth living'. Nussbaum (2011) defines life in terms of being free from factors that cause immature death, or not being able live until late age. Life capability was among the three basic capabilities that Human Development Index measures since it has been put in practice in 1990.

2. **Bodily health**. Being able to have good health, including reproductive health; to be adequately nourished; to have adequate shelter. **It** includes good nutrition, decent living standards. According to the World Health Organization (WHO 2019), health is 'a state of complete physical, mental and social wellbeing and not merely the absence of disease or infirmity'.

3. **Bodily integrity**. Being able to move freely from place to place; to be secure against violent assault, including sexual assault and domestic violence; having opportunities for sexual satisfaction and for choice in matters of reproduction.

4. **Senses, imagination and thought**. Being able to use the senses, to imagine, think and reason—and to do these things in a 'truly human' way, a way informed and cultivated by an adequate education, including, but by no means limited to, literacy and basic mathematical and scientific training. Being able to use imagination and thought in connection with experiencing and producing works and events of one's own choice, religious, literary, musical and so forth. Being able to use one's mind in ways protected by guarantees of freedom of expression with respect to both political and artistic speech and freedom of religious exercise. Being able to have pleasurable experiences and to avoid non-beneficial pain. **Sense**, imagination **and thought**: Nussbaum (2011) defines this capability in terms of imagination and thought. The arts, sciences and humanities could be taught using action learning to increase the relevance of the curriculum for employment that supports and regenerates the environment.

5. **Emotions**. Being able to have attachments to things and people outside ourselves; to love those who love and care for us, to grieve at their absence; in general, to love to grieve, to experience longing, gratitude, and justified anger. Not having one's emotional development blighted by fear and anxiety. (Supporting this capability means supporting forms of human association that can be shown to be crucial in their development.) Nussbaum argues for public policy to protect the ten capabilities as key elements for human dignity (2011: 79).

6. **Practical reason**. Being able to form a conception of the good and to engage in critical reflection about the planning of one's life. (This entails protection for the liberty of conscience and religious observance.)

7. **Affiliation.** Being able to live with and towards others, to recognise and show concern for other human beings, to engage in various forms of social interaction; to be able to imagine the situation of another. Protecting this capability means protecting institutions that constitute and nourish such forms of affiliation and also protecting the freedom of assembly and political speech. It also refers to the ability for people to create sense of belonging to others (including other species such as animals and plants) and to institutions. Having the social bases of self-respect and non-humiliation; being able to be treated as a dignified being whose worth is equal to that of others. This entails provisions of non-discrimination on the basis of race, sex, sexual orientation, religion, caste, ethnicity and national origin.

8. **Other species**. Being able to live with concern for and in relation to animals, plants and the world of nature.

9. **Play**. Being able to laugh, to play and to enjoy recreational activities.

10. **Control over one's environment in a political and material sense**. Nussbaum refers having the right of political participation, protection of free speech and association and being able to own property.

stood or recognised. Protecting habitat becomes particularly important in the context of climate change where food and water are scarce.

The viability of this approach to vocational educational training supported by public education could be tested within a cluster of schools and supporting organisations. These schools and extended networks could become nodes in a network of public education within and beyond schools that model respect for living systems including domestic animals, liminal life forms (birds, lizards that live in urban environments), farm animals and spaces for wildlife (Donaldson and Kymlicka 2011) supported by a respect for indigenous people and knowledge (UNDRIP 2007).

The focus of the public education curriculum could be to support the ten capabilities for a life worth living for all sentient beings. By focusing on UN Sustainable Development Goals (United Nations Sustainable Development Goals 2017), the UN Urbanisation Report (2014) and ways to prevent risk, by taking on board the principles of the Sendai Report (United Nations Office for Disaster Risk Reduction 2017), practical life skills could be gained and shared across the generations and with the wider community that could enable city environments to become more resilient and better integrated with the regional, rural areas on which they depend. They could also be encouraged to protect indigenous habitat for the benefit of all living systems (UNDRIP 2007). By ensuring that people learn by practising sustainability and by being supported in a caring co-operative community (that enables learning whilst earning a living), social and environmental justice concerns could be met.

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Chapter 11
Putting Communal Land into Productive Use Through Collaboration, Networking and Partnerships in Rural South Africa

Akwasi Arko-Achemfuor

Abstract The nineteenth, twentieth and twenty-first centuries have seen increasing movements towards neoliberalism and globalisation across the world. A lot of countries and regions across the world have taken advantage of neoliberal policies and globalisation to access markets as well as use innovative technologies to produce goods and services. In spite of the advantages brought about by neoliberalism and globalisation to most parts of the world, some regions in the developing world have been forced to abandon some of the good aspects of their traditions and culture that have sustained and maintained them over the years. Although Africans cannot be said to be a homogenous group, certain aspects of their cultures are similar. This chapter argues that cultural hegemony has led to a situation where the people of Africa have to a large extent abandoned certain aspects of their culture and traditions that have kept their communities over centuries while they at the same time have not been able to fully adopt and adapt to other cultural traditions and systems from elsewhere. Communal ownership of land and other natural resources has been the practice of most African communities, but the advent of colonialism, imperialism and capitalism has contributed to land ownership and use falling into private ownership which most African communities find difficult to adapt to.

This chapter reports on how members of a rural community in South Africa are effectively addressing the challenges of poverty, unemployment, lack of access to private land and food security through the use of communal land in a rural community in the North West Province of South Africa. There are ongoing debates on land ownership, inequality regarding access to land for the majority black population in South Africa. Some commentators argue that communal land that is in the custody of traditional authorities, most especially in the former Bantustans, is not put to productive use to address the challenges of poverty, food security and unemployment in rural areas. I argue that the question on using communal land for rural development is crucial for socioeconomic empowerment of rural communities in

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particular and social science research in general. I illustrate how communal land is made available by one traditional authority to the members of the community which in collaboration with a non-governmental organisation, an institution of higher learning, a provincial administration and the private sector is putting communal land to productive use through what I refer to as putting "communalism" or "communitarianism" into practice. The lessons from this initiative can serve as a model for using communal land for sustainable livelihoods in rural South Africa and elsewhere on the African continent where communal ownership of land continues to be a major challenge to socioeconomic development of communities.

Keywords Agriculture · Communal land · Culture · Globalisation · Neoliberalism

Introduction

Development practitioners, governments, the private sectors and non-governmental organisation just to name a few advocate for a sustainable development in all communities. The concept of development has and continues to feature prominently on the development agenda that gained prominence in the 1960s and 1970s. The right to development was recognised as a human right in the 1970s and later adopted as the Declaration on the Right to Development in 1986 leading to the concept of development being placed firmly in the discourse of economics and other disciplines. The right to development was a means to address the anxieties among developing countries who feared for their just treatment in the international community's economic governance conduct (Fukuda-Parr 2012). Hitherto, development was viewed mainly from the economic perspective which centred to a large extent on economic growth. However, advocates and researchers such as Seers (1964) started to question the other important aspects of the concept which were neglected such as the social, environmental and well-being. Various approaches and strategies have been suggested and adopted by countries and organisations including the move towards sustainable development, the Millennium Development Goals (MDGs) and, more recently in 2015, the United Nations (UN) Sustainable Development Goals (SDGs). The sustainable livelihoods approach (SLA) has been advocated for as one of the key theories in development and poverty analysis (Ashley and Carney 1999). The approach combines a conceptual framework with a set of operational principles to provide guidance of policy formulation and development practice. Some of the key proponents of the SLA are DFID, Oxfam, CARE and UNDP who emphasise and use the approach in various projects and initiatives across the world. There are many ways of applying the livelihoods approach, but it is very important to keep or work along the underlying principles of the approach.

Chambers and Conway (1992) define sustainable livelihood as comprising the capabilities, assets (including both material and social resources) and activities required for a means of living. Livelihood is said to be sustainable when it is able to cope with and recover from shocks and stresses, maintain and enhance its capabilities

and assets both now and in the future while not undermining the natural resource base (Ndlovu 2013: 33). Sustainable livelihood as a concept incorporates the notion of complexity, change and uncertainty thereby empowering people to earn incomes to meet the current and future economic and social needs and minimise their vulnerability to external stresses.

The nineteenth, twentieth and twenty-first centuries as mentioned earlier on in this chapter have seen increasing movements towards neoliberalism and globalisation across the world. Friedman (1962) is one of the key theorists and proponents of neoliberalism. The central claim of neoliberalism is that the free market or capitalist system is maximally effective in producing and equitably distributing the economic, social, political and intellectual necessities of life in society. The free market comprises atomistic rational individuals who know their needs and wants and who contract with other individuals through the mechanism of the marketplace to satisfy those needs and wants. Drawing its cue from classical economics based on individualist notions, neoliberal theorists argue that these needs and wants motivate self-interested actions. Consequently, self-interested individuals active on a free market within and beyond their national boundaries become the most competent agents of development because the free market is able to enhance their economic status and that of their nations as a whole.

Globalisation is defined by Dreher et al. (2008: 15) as the intensification of cross-national interactions that promote the establishment of transnational structures and the global integration of cultural, economic, environmental, political, technological and social processes on global, supranational, national, regional and local levels. A lot of countries and regions across the world have taken advantages brought about by globalisation to access markets as well as use innovative technologies to produce goods and services. In spite of the advantages brought about by globalisation, some regions in the developing world have been forced to abandon some of the good aspects of their traditions and culture which have sustained and maintained them over the years. As indicated earlier on in this chapter, Africans cannot be said to be a homogenous group, but certain aspects of their cultures and traditions tend to be similar. For example, Quora (n.d.) argues that there aren't a lot of differences between African cultures possibly because the continent was "uniformised" by the Bantu migrations, the Mfecane and finally Christianity and Islam. Quora (n.d.) adds that there is only one major difference in African culture, the matrilineal (Akan) and patrilineal form of descent, everything else is simply window dressing. I argue that cultural hegemony which is the situation where an alien culture is imposed on another culture eventually comes to dominate various aspects of an indigenous culture such as the politics, economic and culture through the medium of language and western education.

Cultural hegemony has led to a situation where the people of Africa have abandoned some of the good and workable aspects of their culture and traditions that have kept their communities sustainable over centuries while they at the same time have not been able to adopt fully other cultural traditions and systems from elsewhere effectively. Iwara (2015: 120) points to the truncation of African cultural modes of development and the unsuccessful adaptation to western way of life introduced by

colonial powers. The capitalist system which is premised on individualism such as land ownership is causing conflicts and other challenges in rural South Africa and elsewhere on the continent.

This chapter reports on how communal land has been made available by one traditional authority to the members of the community, and through collaboration with a non-governmental organisation, an institution of higher learning, a provincial administration and the private sector are applying the African value of and communalism to put communal land to productive use for the benefit of the whole community. The sociocultural dimension of farming towards the livelihood of people and their adaptive management development as sustainable interventions in community-based natural resources management is examined.

The communal land use by the members of the community has enabled them to work together and support each other for them to be able to compete in this highly competitive industry despite some challenges which crop up from time to time which are addressed in the same communal manner.

Literature Review

The concept of development and underdevelopment continues to be debated among academics, NGOs, development practitioners, governments and communities across the world, most especially in the developing world. Some commentators such as Awoonor (2006) and Nyerere (1968) argue that the causes of underdevelopment are the consequences of imperialism, colonialism and hegemony on the part of the west. The two approaches normally used to analyse the concept of development and underdevelopment are the orthodox and radical approaches. Most orthodox economists are of the view that most of the underdevelopment crisis faced in the developing world today are caused by cultures, traditions and superstitions which impede their progress (Otite 2011: 125). The radical approach which Labenstein (1969) and Alperovitz and Truthout (2014) are some of its key proponents suggests that the history of the underdeveloped nations of the world in the last century can be attributed to the history of the consequence of European expansion and the functioning of international sciences, which continue to be dominated by Europe and North America. This chapter is not going to delve much into the two opposing perspectives. Suffice it however for one to point out that there might be some elements of truths in both perspectives, but what is most relevant to this chapter is moving forward although history should not be discounted.

The debate rages on in South Africa. Recently, the former leader of the Democratic Alliance (the main opposition party in South Africa today) was hauled over the coals over a tweet she posted on some of positive effects of colonialism in South Africa. This was interpreted by a section of the South African society as defending colonialism, racism and imperialism, which she denied. She stressed that this was a misinterpretation of her tweet.

The current focus appears to me, ought to be what can be done to bring development to all nations, people and communities across the world. From the 1960s, the shift has been to find ways of addressing the issues of development and underdevelopment. Seers (1964) suggested that development across the world should be measured by posing the following questions as to:

- What has happened to poverty?
- What has happened to unemployment?
- What has happened to inequality?

His view was that if the answers to all the three questions are yes, then definitely one can boldly say development has taken place. The MDGs were put into place by the United Nations just at the dawn of the New Millennium to address the developmental challenges facing nations. Analysts like Bland (2014) are of the view that a lot was achieved, but many countries in the developing countries were not able to achieve the targets set leading to the adoption of the 17 SDGs with 63 targets in 2015 to be achieved by 2030.

Many arguments are also being advanced by researchers and development practitioners regarding the achievement of the development agendas in the wake of globalisation and neoliberalism. It appears some parts of the developing world are not coping and being left behind because of their cultural and traditional systems which are not very much in line with the concepts of globalisation and neoliberalism. However, as noted earlier, this is a neoliberal position, which I outline below.

Globalisation and Neoliberalism

Citing Castells (1996), Luke and Luke (2000), Nash (2000), and Dreher et al. (2008) identify the different forms globalisation takes. Dreher et al. (2008: 15) define globalisation "as the intensification of cross-national interactions that promote the establishment of transnational structures and the global integration of cultural, economic, environmental, political, technological and social processes on global, supranational, national, regional and local levels". The ability of individuals, communities and nations to tap into the global system impacts on their development. Globalisation provides opportunities and threats for the global community which is referred to now as the global village. Nations and individuals who are able to exploit the opportunities offered by globalisation are prospering, whereas the other nations that are not able to adapt are at the mercy of the world. The phenomenon appears to be more complex than it was initially envisaged. One cannot agree more with Milana's (2012: 779) argument that UNESCO and EU processes assign specific values and meanings to globalisation which reflect a limited understanding of the complexity embedded in contemporary globalisation processes. The evidence of this includes the rise of anti-globalisation tendencies in Europe such as (Brix it) and Donald Trump's rise to the American presidency possibly on

the ticket of anti-globalisation agenda and the use of ICT for producing goods and services across the world while the application of ICT to cybercrime and terrorism is on the increase as well.

Neoliberalism appears to have emerged from neoclassical economics tradition which embraces intellectual innovations as monetarist, supply-side economics, public choice theory, New Public Management and New Consensus economics (Heilbroner and Milberg 1995). Ban (2011: 131) points out that neoliberals posit causal links between tax cuts and capital investment (rather than consumption) or between the rigidity of employment protection legislation and unemployment figures. In addition, the neoliberal policy paradigms involve reducing inflation and budget deficits (even at the cost of employment), privatisation, the scrapping of industrial policy, lower marginal tax rates and reduced corporate income tax rates, deregulation of financial instruments, decentralisation and flexibility in labour protection as well as the use of market principles in public services (Heilbroner and Milberg 1995).

In effect, neoliberalism is underpinned by the free market principle where demand and supply determine what is produced and who gets which part of what is produced. The multilateral institutions such as the World Bank and the International Monetary Fund (IMF) are some of the key institutions that have been used to pursue the neoliberal agenda across the world. The application of neoliberal policies permeates private businesses, multinational corporations and the state sectors across the world where deregulation and rationalisation have become the "name of the game". Much as neoliberalism has become accepted across the world, certain aspects of the cultural traditions and indigenous knowledge systems that have been used and worked for Africans have not been applied effectively for productive purposes on the African continent on sustainable basis.

Application of African Knowledge for Economic Development

Citing Quijano (1990) and Ajei (2007: 153) cautions Africans to be authentic with themselves. Ajei (2007: 153) notes that, authenticity demands that we "have to stop being what we have not been, what we will never be, and what we do not have to be". An important first step towards achieving this is to harness "the usable past" and to construct an "authentic African episteme" (Mudimbe 1988). The need for Africans to adapt their IKS which have worked for them in the past and continues to work for them today is advocated for by some researchers, politicians and pan-Africanists. Hountoundji (2004: 534) suggests that an important step towards correcting Africa's scientific dependence, and bringing its indigenous knowledge to the service of its development, is for her to integrate her indigenous knowledge systems "into the mainstream of on-going research". Similarly, Awoonor (2006: 5) points out the continent's marginalisation within the context of "the globalisation myth". The concepts globalisation and neoliberalism which originate from the west "fit into the particularism of the western claim to predominant superiority in all things as the foundation for the universal", where the continent "has become not only the

consumer of other people's material culture in extenso but, more perniciously, other people's ideas thereby ignoring and neglecting the good aspects of their own culture." This observation by no means implies that all African IKS are good.

Theoretical Framework

This chapter is underpinned by Nkrumah's (1967) "communalism", the conceptual equivalent of "communitarianism" which is a theory of social organisation that has been formulated variously by its adherents and Nyerere's (1968) African socialism. The adherents of communalism seek for the cooperation of human beings rather than conflict and consensus in the making and implementation of decisions rather than dispute. Ajei (2007: 45) intimates that humanism as a philosophy underlying communalism is based on egalitarianism. This philosophy aims at the reconciliation of the individual's aspirations with group welfare. Nyerere's (1968) African socialism (Ujamaa) was guided by three main principles: equality and respect for human dignity, sharing of the resources which are produced by the efforts of all and work by everyone in an agriculturally based economy and exploitation by none. According to Nyerere (1968), Ujamaa, as the practical expression of the doctrine of African socialism, implies first and foremost the building of society on the traditional African value of familyhood which is very close to Nkrumah's communitarianism. Citing Shorter (1978), Etta et al. (2016) point out that African communitarianism or communalism is organised to satisfy the basic human needs of all its members. They give the example of the need and use of land, which is communally owned for the benefit of everyone, as it is in the case understudy here. The two theories are relevant to this chapter in the sense that they shed light on how the tried and tested African IKS can be used to address some of the socioeconomic challenges confronting Africa today. Although globalisation and neoliberal policies have become the norms in the modern world, in certain communities they appear to be contrary to the traditions and cultures of the people thereby creating strife and conflicts. For example, the conflict between the commuter taxi operators and the alleged political violence in certain parts of South Africa appears to be the result of some communities trying to apply neoliberal policies where the winner-takes-it-all under which capitalism operates. The communal use of land by community members appears to work for the communities where they are able to manage, rear their livestock and cultivate the communal land through collaboration and cooperation. The members of the community meet from time to time to discuss issues that affect the community including the use of the communal land. With the traditional leaders and those who are interested in farming, an agreement is reached out for part of the communal land to be availed to them where those who are part of the project attend training together and work in cooperatives to support each other and sustain their individual and group interests. In the chapter, I refer to, and extend, wider debates on the application of the two theories which underpin this chapter in practice. I do this by engaging with the work of authors forwarding Indigenous research approaches,

where I highlight the principle of communalism as underpinning the use of communal assets for productive purposes to ensure sustainable livelihoods. I offer an example (and ask some questions for consideration) based on my own experiences as the leader of a community engagement project that is working with a private sector organisation that is leading the initiative regarding the training and capacity building of the rural community where this initiative is taking place. I discuss in detail with examples of some elements of the application in the field of adult education, community development and empowerment in which I am involved, to help to illustrate my suggestions. I thus focus on research relationships that are established with participants and communities and on how theory can be put into practice in the application of African IKS that can be applied to address some of the socioeconomic challenges confronting the continent today to improve the quality of life of its people in a sustainable manner.

Bokamoso's Initiative to Use Communal Land for the Benefit of the Community

In this section, I discuss how the initiative was started as a pilot in one rural community in the North West Province of South Africa. The purpose of the initiative is in order for Bokamoso and its partners to address the challenges of poverty, unemployment and food insecurity in rural South Africa where communities have access to communal land. Bokamoso again intends to use the approach as a model for other rural communities in South Africa and the other parts of Africa in order to address some of the challenges they face.

The Genesis of the Initiative

The Chief Executive Officer of Bokamoso Impact Investments (Ms. Lesego Serolong), a private sector organisation whose mission is empowering rural communities through sustainable job opportunities, initiated the programme in 2015 in one remote area of the Kalahari Region in the North West Province near the Botswana in South Africa. According to the CEO (Ms. Serolong), she was given the opportunity to work in the village after completing school for 1 year as an unqualified teacher. After getting the opportunity to study abroad, she returned to South Africa with her master's degree and has made rural community development one of her primary objectives through sustainable livelihood with agriculture being the focus of the initiative. She consulted the traditional authority in Manyeledi under the leadership of the chief on how her organisation and other partners could work with the community to reduce poverty in the area which is very endemic. After the initial meeting, the chief promised to consult his community on the proposal.

Consultation with the Community to Reach Consensus

The traditional authority through a number of community meetings agreed that they wanted to be assisted to use the vast track of land which they have to develop their community and its people. The initial proposal was for the community to be helped in livestock farming which is the main economic activity which is carried on small scale by members of the community. They indicated that they would have loved cultivating food crops as they buy all their food from far because of lack of water and poor rainfall patterns in the area. They however agreed to meet BII with the proposal to be assisted in agriculture as a means to developing the community to create jobs, reduce poverty and ensure food security in the area. A memorandum of understanding was signed between the community and Bokamoso.

Consultation with Partners and Their Respective Roles

Bokamoso then consulted partners in the private sector organisations such as AFGRI, Ages Hydrology, an academic institution (University of South Africa), the traditional authority and the North West Provincial Administration to pull resources together to support the initiative which could be used as a model for sustainable rural development. BII is the leader of the initiative and responsible for establishing a hub at the edge of a large track of land which had been allocated by the traditional authority for the programme, coordination between the partners, be in-charge of the training and incubation after the training and the marketing of the produce of the farmers who graduate from the programme. AFGRI's role is to support the BII in its training and incubation and marketing of the produce. Unisa's role is to provide adult basic education and basic literacy and numeracy for interested members of the community who have no education at all or very little literacy and numeracy skills as well as provide entrepreneurship training on ongoing basis to equip the members of the programme with basic entrepreneurial skills for them to run their farming activities on sound business principles. The traditional authority's roles include making land available for the programme and mobilising the community to participate in the programme. Ages Hydrology was to prospect for water in the area for the agricultural activities. The North West Provincial Administration was to provide equipment and other inputs as well as help in the preparation of the land, fencing, etc.

Implementation of Programme

Bokamoso as the initiator and leader of the programme managed to bring the partners together to play their respective roles in implementing the programme. Twenty community members were registered and put through the ABE programme

which was sponsored by Unisa. After completing a 6 months ABE programme, they were put through an intensive basic agriculture training in vegetable, livestock and bee farming. This aspect of the training was sponsored in full by Bokamoso. The theoretical and practical training was conducted at the hub. Ages Hydrology meanwhile was contracted by BII to prospect for underground water which it did successfully and located a lot of it about two and half kilometres from the hub which it drilled and channelled to the land. The North West Provincial Administration (NWPA) provided fencing for the security of the land, equipment, seeds, a 140 metre centre pivot irrigation system and other inputs after consultation with BII, the traditional authority and the community. The centre pivot irrigation (sometimes referred to as the central pivot irrigation, water-wheel and circle irrigation) is a technique of crop irrigation in which equipment rotates around a pivot and crops are watered with sprinklers. Each of the farmers was allocated two hectares of land to produce the crops which the technical advisors in consultation with BII and the farmers agreed upon based on the market and weather conditions. The farmers are allocated individual plots to work on; they attend training together, buy inputs as a group through Bokamoso and sell their produce through the cooperative system.

Discussion

The question on land rights and landlessness among majority of the black population in South Africa continues to be a contentious issue which some commentators, researchers and development practitioners have referred to as a looming time bomb which if not addressed urgently can result in instability any time. For example, Mhlungu (2018: 14) argues that the damaged family structure in African societies is the result of lack of land. She adds that the 1913 Native Land Act not only caused enormous suffering and poverty, it also eroded family values and directly gave birth to the migrant labour system which saw a geographical disruption in African families. The need to address land rights including communal land ownership has been going through the legislation processes over the years. Communal land means land contemplated in Section 4 of the Communal Land Rights Act as land owned, occupied or used by members of a community subject to shared rules or norms and customs of that community and includes land owned by the State but used by communities as communal land (the Communal Land Tenure Bill of 2017). For example, the Communal Lands Rights Act 11 of 2004 aims to provide for legal security of tenure by transferring communal land, including KwaZulu-Natal's Ingonyama land, to communities, or by awarding comparable redress; to provide for the conduct of a land rights enquiry to determine the transition from old order rights to new order rights; to provide for the democratic administration of communal land by communities; to provide for Land Rights Boards; to provide for the cooperative performance of municipal functions on communal land; to amend or repeal certain laws; and to provide for matters incidental thereto. Communities have been complaining about delays in addressing the land question. The most recent

bill passed by parliament in 2017, the Communal Land Tenure Bill of 2017 as Section 76 Bill, aims:

> to provide for the transfer of communal land to communities; to provide for conversion into ownership of land rights in communal land to communities that own or occupy such land; to provide for the transfer of ownership to communities and community members of land acquired by the State to enable access to land on an equitable basis; to provide for the right to use by community members of land owned by the State; to provide for registration of communal land; to provide for conditions of registration of communal land; to provide for general plans for communal land; to provide for the award of comparable redress; to provide for land rights enquiries; to provide for acquisition of more land for use as communal land; to provide for the choice on the administration of communal land; to provide for the establishment of households forums by communities; to provide for community rules; to provide for the establishment of communal land boards; to provide for dispute resolution mechanisms; to provide for the provision of municipal services on communal land, to amend and repeal certain laws; and to provide for matters incidental thereto.

There has been cry from some communities that the communal land for communities that are put in the trust and custody of traditional leaders is not made available to community members for their socioeconomic development but rather some traditional rulers profiteering from them resulting in court cases and in some instances leading to violence. Twenty years have passed since the homelands were reintegrated into a unitary South Africa, yet the legacy of the colonial and apartheid past continues to haunt these areas.

> Almost 17 million people or a third of the population of South Africa reside in the former homelands, which the post-apartheid government calls 'communal areas', according to forms of communal tenure. However, for most of the people living in these areas the full recognition of their land rights remains unrealised as the South African government has been unable to develop laws and policies that sufficiently capture the nuanced ways in which people experience and regulate relations of communal tenure in their everyday lives Clark and Luwaya (2017: 3).

Clark and Luwaya (2017) acknowledge that, although the government has enacted laws to enhance the security of tenure of farm dwellers and labour tenants, there is currently no substantive legislation to secure and promote the land rights of the people living in the former homelands. They add that despite the constitutional imperatives on the state, the tenure of insecurity of those living in the former homelands persists. Meanwhile, the Centre for Law and Society (CLS) (2015: 1) points out that the government of South Africa appears to be applying the concept of "use rights" in dealing with the contentious issue of communal land. "Use rights" according to CLS (2015) refer to small areas such as household plots, while a traditional council owns and controls all development related to common property areas such as grazing land and forests. The Communal Land Tenure Policy (CLTP) (2014) specifically states that the traditional council will own and be in charge of investment projects such as mining and tourism ventures. Certainly, not all chiefs are corrupt. The allegation of abuse of power by some traditional authorities of communal land that is under their custody is often cited. Examples include the sale of residential sites cut from grazing land by traditional leaders to outsiders and massive community dissatisfaction with opaque mining and tourism deals that exclude

and fail to benefit ordinary people in KwaZulu-Natal, North West, Limpopo, Mpumalanga and Eastern Cape (CLS 2015). Communal land according to Weinberg (2015: 7) was employed by the colonial and apartheid governments in a crude or simplistic way, to describe African customary land tenure systems as "group-based", that is, opposite to individual property ownership in Europe and elsewhere. Weinberg (2015: 6) adds that the post-1994 government refers to the former homelands as "communal areas" (Communal Land Tenure Policy 2013), where the rights to land of the people living in those areas are uncertain and vulnerable. Evans (1997) adds that the apartheid laws made it illegal for Africans to hold individual titles to property, on the premise that this would erode "communal land tenure". Citing the government's White Paper on the Tomlinson Report (1956), Houghton (1956: 187) notes that "individual tenure would undermine the whole tribal structure. The entire order and cohesion of the tribe…is bound up with the fact that the community is a communal unit…".

This chapter is not going to delve into the merits or otherwise of the government's position on communal land tenure, but it appears it formed the basis of the areas identified as such having their land put under the custody of chiefs and traditional areas. Communal land has thus been assumed to be used communally.

As the debate over land rights and the land tenure rages on, the community of Manyeledi based on their customs and the assumed communal ownership of the of the land in their community have been able to come together and made the communal land available for the benefit of the community members. The processes involved in agreeing to start the initiative were organised by the traditional authority through the *Kgotla* (community meetings). The traditional authority under the leadership of the Chief appears to apply the African philosophy of Ubuntu in this initiative.

Ubuntu is described by Khoza (2006: 103) as "the capacity in an African culture to express compassion, reciprocity, dignity, humanity and mutuality in the interests of building and maintaining communities with justice and mutual caring". The initiative to mobilise the community to address the challenges they face also addresses the issue of social justice. Each of the farmers in the project farms on communal land that is allocated to them through the local traditional authority. The initiative to mobilise the community to address the challenges they face also addresses the issue of social justice. Brody (2017: 31) points out that estimates put the number of communal farmers in South Africa at about three million. He adds that the former homelands in South Africa comprise about 15 million hectares, the greater percentage of it being communal land (or commonage). He is of the view that this asset base presents numerous opportunities, if the challenges regarding infrastructure and knowledge shortfalls that have bedevil the communal farming sector can be addressed. Similarly, Maseti (2017: 6) echoes some of the challenges confronting the farming sector in South Africa and the emerging and communal farming in particular which affects the land reform programme currently, as millions of hectares of unproductive land that have been given to their rightful owners as part of the land restitution process. The National Development Plan (2011) equally highlights the same problem, underutilised agricultural land in communal areas. To address some of the challenges confronting small-scale farmers most especially farming on com-

munal land, Erasmus (2018: 32) noted that there is the need to place emphasis on education in agriculture in Africa, because the lack of education does not only impede access to technology, but it also impedes productivity. She adds that technology must suit the local culture and market. The land on which the farmers produce their crops is not privately owned but belongs to the whole community where the members of the community who are interested in farming have been given the permission to use it for productive purposes.

Through the initiative, education and training and capacity building were offered by volunteer educators who were funded by Unisa, Unisa staff and BII. The incubation of the members of the community by BII and the NWPA has enabled the communal land to be used effectively for productive purposes, thereby creating employment, alleviating poverty and ensuring food security through partnerships and collaborations. As the debate on the land question rages on, this community applying Nkrumah's (1967) "communalism" or "communitarianism" and Nyerere's (1968) African Socialism (*Ujamaa*) which are theories of social organization which seek for the cooperation of human beings rather than conflict, and consensus in the making and implementation of decisions rather than dispute. Neoliberalism, globalisation and the free market policies most at times operate from the opposite angle of communalism. As has been discussed earlier on in this chapter, some of the principles on which neoliberal and market systems are based are in conflict to some African cultures and tradition leading to conflict situation. Some of such examples in South Africa include the minibus taxi wars and of late the metre-taxi operators and app-based Uber and Taxify operators as well as the alleged political killings that have been taking place on the South African political scene. One may not be far from the truth by stating that the winner-takes-it-all approach to economic opportunities in communities can be looked at also from the cultural perspective which accommodates the cultures and traditions of the people. When compared to the capitalist system that is mostly applied in the West which is turning out to be where most parts of the world is moving towards, most African cultural traditions are based on the communal and collectivists practices. This view is supported by Ikuenobe (2006: 329) who argues that African communalism as both an African conceptual framework and set of cultural practices prioritises the role and function of the collective group over the individual in a world view context.

Conclusion

The chapter examined how one rural community in South Africa has used its cultural traditions and value system of communitarianism to manage one of its main assets – the communal land – to empower the members of the community to address the challenges of poverty, unemployment, food security and landlessness. Although neoliberal policies including globalisation dominate the economies of countries across the world today, some of the developing countries have not been able to move with the pace of globalisation. They have abandoned some of their socioeconomic

systems that have kept and sustained them over the years such as Ubuntu and Ujamaa. This chapter thus advocates for the return to African cultural values and traditions which work for them well such as the communal ownership and use of land. It is suggested that what has made this workable is a network of actors who include a private sector organisation, a higher education institution, a traditional authority, a provincial administration and a community. The community under discussion tapped into what is workable in their cultural tradition on using communal asset in the form of land and by applying the Africa philosophy of Ubuntu to address some of the socioeconomic challenges in their community. The initiative is working, as many community members have been empowered to become commercial vegetable producers and created employment, reduces poverty and addresses the challenges of food insecurity in the community and the area.

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Chapter 12
Designing a Policy Response to Populism and the 'Wicked' Issues of Exclusion, Unemployment, Poverty and Climate Change

Janet McIntyre-Mills

Abstract This paper scopes out a response to the new populism based on anger and a sense of exclusion by those left behind by a neo-liberal economy resulting in high levels of unemployment or underemployment. Unemployment has been represented as a problem associated with policy representations ranging from the most conservative to more progressive approaches, for example, lack of appropriate skills, lack of motivation, over mechanisation, lack of resources, lack of will from government, lack of capability as a result of lack of vision and imagination, inability to include diverse representations of the so-called problem and the need for transformational systemic thinking and practice to ensure integrated blue economy approaches within a cascade economy. The issue has been problematised by the left as too little too late for specific interest groups by critical spectators who no longer demonstrate alternatives, according to Rorty (Achieving our country: The William E. Massey Sr. Lectures in the History of American Civilization. Harvard University Press, 1999) in *Achieving Our Country*. The right has characterised unemployment as a lack of appropriate education or associated with poor management of resources by families, communities, schools or tertiary educators.

Keywords Anger · Elitism · Inequality · Reframing governance · Blue economics · Socio-environmental justice

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Introduction: The New Populism and a Practical Response

> "Do not deplore, do not laugh, do not hate—understand". There is no point in sociologists adopting Spinoza's precept if they are unable to put it into practice. Bourdieu (1999: 1)

This paper makes the case that the problem has been misrepresented as a result of a lack of understanding that in nature there is no waste and no unemployment and that in a cascade economy, no one and nothing is wasted. A change in direction is needed. The policy approaches and subsequent governance responses that have flowed from this misunderstanding are characterised by an incorrect framing of unemployment and incorrect policy and governance procedures that have been used by populists on the right and on the left for their own political agendas. The policy approaches and subsequent governance responses that have flowed from this misunderstanding have been used by populists on the right and on the left for their own political agendas. A change in direction is needed. The paper discusses a human development[1] approach to enhancing the capability of global citizens. The approach to governance addresses the need to include the wide range of groups that are affected by policymaking. Those who are affected by a policy decision should be part of the policymaking process shaped by *monitoring from below* to protect local interests and monitoring *from above* in postnational constellations to protect the global commons. The approach to representation detailed in 'Planetary Passport' (McIntyre-Mills 2017) is inclusive and based on testing out ideas. The policy silences and the silenced people are placed at the centre of this approach, in order to foster their capabilities. The approach enables user-centric policy design based on the perceptions of what works, why and how. In this sense the mixed methods approach is non-linear and participatory. It also honours the policy environment that stresses the need for a sense of ownership of a problem and the way in which it is framed. This needs to be developed to address the challenges faced across the different age cohorts in a range of developed and developing nations to address the convergent social, economic and environmental challenges facing people living in an increasingly divided world where *the haves* make policy in their own interests at the expense of the majority in this generation and the next.

The scoping paper addresses unemployment as a complex issue, because it has many, diverse, interrelated variables that are perceived differently by different stakeholders (Flood and Carson 1993).

It suggests a Mmultiple Mmixed Mmethods approach (Romm 2018) to inform policy development based on a policy process that represents the voices of diverse stakeholders (Hesse-Biber 2010), in order to inform a response that takes diverse views into account and strives to find a way to find overlaps in interests or to recognise spaces for difference.

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[1] A human development approach is needed to enhance capability. The approach extends the work of Bacchi (2009) by enabling user-centric policy design based on the perceptions of what works, why and how. In this sense the mixed methods approach is non-linear and participatory. It also honours the policy environment that stresses the need for a sense of ownership of a problem and the way in which it is framed.

The wicked nature of problems (Rittel and Webber 1984; Mertens 2015) such as climate change, poverty, crime or unemployment is that *a solution* for some stakeholders *causes problems* for others. Thus the approach is **not** merely to *explore debates* and *either/or* dilemmas but also to explore the feedback loops of policy paradoxes or governance aporias that show the extent to which problems are systemically interconnected.

Structural Adjustment in Adelaide, South Australia

Friday the 20 October 2017, the last Commodore[2] drove off the assembly line. I reflected on everyday life in the Anthropocene where structural adjustment money has been given to companies involved in businesses that no longer comply with the zero carbon approach (declared as policy in South Australia) to help mitigate and adapt to climate change. The last car off the Holden motor car factory line is being celebrated today in Adelaide, South Australia:

> Workers lament the passing of the era and the Holden icon

But other options can be created that protect people and the planet and generation new, sustainable options. So whilst the unemployment challenge is personal, the public responsibility is to create alternative pathways to wellbeing.

Political complicities are involved in addressing unemployment in a world where divisions in life chances are associated with *growing inequalities between rich and poor* which are the result of **deliberate structural choices**. Some are made for the common good, but the short-term pain felt my many needs to be addressed to avoid the rise of populism.

The paper builds on the argument developed in '*Planetary Passport'* (and makes a plea for reconnection and remembering our hybrid relationships with others and the land on which we depend. Developing a greater number of connections enhances consciousness (Greenfield 2000, 2003, 2008). My research to date tests the extent to which mindfulness (based on enhancing the capability of people to think about our thinking) could help us to create closer bonds with others based on the realisation that we are interdependent and thus that we need to bridge differences.[3] The notion

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[2] Keane, B 2017. 'Australians love of car manufacturing, Holden is misplaced'. https://www.crikey.com.au. 20 Oct 2017.

[3] It extends the potential of Max-Neef's Being, Having, Doing and Interacting Index (Max-Neef 1991: 33) by adapting it to address the UN Sustainable Development Goals (2014) and to thereby develop and test as a means to balance individual and collective needs (McIntyre-Mills 2014, 2016, 2017).

As such the approach extends the 'frontiers of justice' (Nussbaum 2006) to address the ten capabilities of a life worth living for human and sentient beings (Nussbaum 2006). Nussbaum's ten central human functional capabilities (Nussbaum 2011: 33–34) cover wide aspects of life that are essential for all human and sentient beings and are supported by the Human Development Index and the UN MDG which support human rights and an appreciation of sentient beings. The creation of employment opportunities needs to be designed to protect sentient beings, regenerate the environment and social fabric and prevent the waste of people and resources.

of the Mobius Band from the string theory workshop hosted by Louis Kauffman[4] (2006) provided a metaphor for understanding our interconnections and interdependence on living systems (see also McIntyre-Mills 2008). Pragmatic recognition of this fact could be the basis for working co-co-operatively to draw on diverse practical cultural wisdoms based on experiential knowledge.

In a redesigned economy people, animals and nature would not be treated as objects from which profit can be extracted without compassion or concern for their quality of life. The goal would be transformed from profit to regeneration of a living system of which we are stewards.

The ability to think about *'the environment of the problem'* (to use West Churchman's phrase) such as the lack of access to full employment by the younger generation who in turn face increased likelihood of never being home owners, is one example of the changes that are occurring in the life chances across the baby boomers born after the war, Generation X, Generation Y and Generation Z.

Considering the different experiences of work for the different generations is a good starting point in this scoping paper:

- Baby boomers (aged 36–55 people born between 1946 and 1965) have experienced very different life chances in that they have had full-time employment.
- Generation X (aged 24–36, 1966–1976) have had a far more difficulties as they have had limited permanent employment in the so-called 'gig economy'.
- Generation Y (5–24,1977–1997) face the challenge of learning new skills in order to remain relevant as designers in an increasingly mechanised and digital economy.
- Generation Z (under 6 born after 1997) face a world where climate change will impact not only the economy but their quality of life unless they can ensure that food, energy and water security are addressed in ways that protect habitat for all species.

If we consider the life chances and experiences across these cohorts, then we are likely to understand that the social determinants of wellbeing will have an impact on how people understand the nature of work. The threat of unemployment as a result of lack of relevant skills is one that needs to be addressed through enhancing the ability of people to design responses to areas of concern. The rich 1% own almost as much as the rest of the population on the planet, according to the latest Oxfam Report.[5] When local people can protect local knowledge, local fauna and flora and habitat, then unemployment becomes less likely. In the wake of the Panama Papers[6] that showed the extent to which elites hide their wealth in offshore accounts, this is important.

After sketching out the background of diverse life chances between *haves* and *have nots* in developed and developing contexts, the chapter suggests an *alternative*

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[4] 46th Annual Meeting of the International Society for the System Sciences at Shanghai, People's Republic of China, August 2–6, 2002.

[5] https://www.oxfam.org/sites/www.oxfam.org/files/file_attachments/bp210-economy-one-percent-tax-havens-180116-en_0.pdf.

[6] Chakraboritty, A. 'Hidden money corrupts', *The Guardian Weekly*, 15.04.16.

way to approach participatory democracy and governance that protects a *biodiverse habitat* to support a *new form of economics* and more inclusive form of employment that does not *extract profit* from *the majority* in this generation, in order to support *minority elites*. Overall the human rights issues are being raised as a concern. The paper makes the case that the problem has been misrepresented as a result of a lack of understanding that *in nature there is no waste* and no unemployment and that in a *cascade economy* no one and 'nothing is wasted' (according to Pauli 2010). We need to focus on the wicked problem of creating jobs and then link to the so-called *blue economy*, and methodologically we need to address Pauli's visionary ideas to draw on examples of projects using gender analysis, mainstreaming, participatory action research and engagement. The approach to governance draws on Foucault and Gordon (1980) and Colebatch (2005) in that it extends beyond the state to include the wide range of groups that are affected by policymaking. The idea is that those who are affected by a policy decision should be part of the policymaking process. Thus the approach to representation is inclusive and basted on testing out ideas. A critical systemic approach to policy design and governance intervention is developed by adapting and extending West Churchman's *Design of Inquiring Systems* to include the environmental issues associated with politics, age, culture and gender raised in the chapter. Thus the focus is on the following:

- Addressing the issues of exclusion, unemployment, poverty and climate change challenges and compares and contrasts issues of poverty spanning developed and developing nations such as Australia, Indonesia and South Africa.
- Extending a human development approach to enhancing capability. It makes the case because of the overlaps across categories that policies need to be more systemic and less containerist and categorical, based on the assumption that what we do to others we do to ourselves. 'More equal societies almost always do better' (Wilkinson and Pickett 2009), and this requires treating others in the way we would like to be treated.
- Outlining a transformational architecture for democracy and governance and its relevance for sustainable living through job creation. Participatory democracy has been replaced by disengaged spectators who see global elites benefiting at their expense. Hulme (2009) stresses that governance through non-state actors is also very important in shaping outcomes for social and environmental justice. Fear of job loss at a *personal level* and fear of being left behind economically at a *national level* are possible explanations for denial of the importance to address transformation in the everyday policy decisions that we make. The chapter explores the implications of urbanisation, loss of territory and loss of species and the implications for living systems of which we are a strand.
- Developing the argument that national and international law needs to underpin (a) regenerative governance within nation states and (b) non-imperialist governance across nation states in order to support (c) local habitat and local wellbeing sticks on which local people depend. Currently, governance is at an impasse as representative democracy does not achieve a support quality of life **for the majority of people**. Governance (and democracy) has been highjacked to support corporate interests as a result of governments being elected with funding and support from

capital—at the expense of people and the environment. It argues that trust needs to be restored by enabling monitoring from above and below, in order to balance individual and collective concerns.[7] The chapter draws on the argument developed in 'Planetary Passport' (McIntyre Mills 2017) and in 'Wall Street to Wellbeing' (McIntyre-Mills et al. 2014)[8] suggesting that representation, accountability, sustainability and regeneration could be supported through governance architecture that could sustain both individual and collective needs.[9] I argue that the global financial crisis and the environmental meltdown seem to be seen as two problems—not one. Human beings cannot achieve new growth through increased extraction of profit. Instead, they need to live elegantly and well through redistribution and simpler lifestyles supported by green economies, reciprocal sharing of resources and skills, supported by energy-efficient systems.[10] The paper distils the

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[7] In this sense the approach extends the work of Bacchi (2009) by enabling user-centric policy design based on the perceptions of what works, why and how. In this sense the mixed methods approach is non-linear and participatory. It also honours the policy environment that stresses the need for a sense of ownership of a problem and the way in which it is framed. Thus the Paris Agenda, the UN Sustainable Development Goals and the Paris Climate Change Agenda are taken into account in this approach to governance. Developing the cascade economy requires addressing policy to enhance representation, accountability and regeneration through reframing governance. Instead of valuing profit we need to think quite differently in terms of so-called wellbeing stocks (Stiglitz et al. 2010). Gunter Pauli (2010: 230–235) explains that natural systems do not work in linear ways. They are cyclical and abhor any forms of waste.

[8] It is based on a program of research that has tested the following hypotheses to date:

The greater the level of participation the better the match between service users and providers.
The greater the level of local participation across diverse stakeholders the more likely representation and accountability can be achieved in increasingly diverse nation states.
The greater the level of public engagement in considering 'if-then scenarios', the greater the level of understanding of the short, medium and long term consequences of policy decisions.
The scaling up of local engagement could provide the basis for better generation, regeneration and redistribution, of basic needs for a life worth living. The assumption on which my research rests is that human beings and other sentient beings deserve a life that is worth living and thus human beings need to become non-anthropocentric stewards of living systems.

[9] To sum up, the challenge is to move beyond the rhetoric of cosmopolitan citizenship and to address both justice and sovereignty. The nation state needs to be held to account by an Earth Charter that is supported by overlapping regional institutions (supported by inclusive regional research institutions, policies, the rule of law including parliaments and courts).

[10] The question needs to be asked whether increased levels of *multiculturalism* and *diversity* cannot be only tolerated but appreciated when jobs are considered to be scarce. The case is made that levels of tolerance to others tend to decline when people compete for scarce resources. So the answer is to strive for the appreciation of *why,* in a more equal society, people experience higher levels of wellbeing and lower levels of risk (Wilkinson and Pickett 2009). The case is made for transformational systemic thinking and practice that supports both people and the environment through job creation. According to Pauli (2010), an integrated blue economy approach supports a so-called *cascade economy*, because of more jobs that will support, sustain and regenerate the environment on which we are mutually dependent. Unemployment has been represented as a problem associated with policy representations ranging from the most conservative to more progressive approaches, for example, lack of appropriate skills, lack of motivation, over mechanisation, lack of resources, lack of will from government and lack of capability as a result of lack of vision and imagination, inability to include diverse representations of the so-called problem.

arguments detailed to date as follows: the bricolage of governance architectures such as (a) the United Nations Local Agenda 21, (b) the United Nations Rights of Indigenous Peoples and (c) the Aarhus Convention provide the minimal conditions that support both the principle of subsidiarity and Ashby's rule of requisite variety that could ensure and enable a more equal society by enabling people to test out ideas and to hold the public and private sectors to account. Creating more job opportunities (although vital) needs to occur alongside a robust willingness to keep reinventing democracy and governance to keep up with the current challenges. Representative democracy based on voting in a government for a term of office does not achieve representation of the increasingly diverse nation states in Europe, America, Africa, Indonesia or Australia. Mobility has resulted in more and more people living in increasingly diverse city contexts.

Empowerment is a matter of achieving transformation through electoral change shaped by social movements and a process of reframing based on decisions that are informed by empathy for others as well as rational research informed by a critical and systemic approach. We need to focus on the 'wicked problem' (Rittel and Webber 1984) of creating jobs and then link to the so-called blue economy, and methodologically we need to address Pauli's visionary ideas to draw on examples of projects using gender analysis, mainstreaming, participatory action research and engagement processes to enhance representation, accountability and the regeneration of social, economic and environmental resources.

Statement of the Challenge: From Building Walls to an Appreciation of Our Interdependence—Representation, Accountability and Regeneration

The chapter addresses the increasingly populist responses characterised by populist responses in developed and developing countries, such as the UK leaving the European Union because voters in the regional areas were concerned about employment and immigration. Rorty (1999: 38) foresaw the rise of increasingly disenchanted populations who see globalisation as a means by which a cosmopolitan elite are able to shape the market in their own interests and who hide their assets with impunity.

The election of Trump and the rise of Fascism in the EU (indicated by the rise in popularity of Le Pen's party in France) need to be understood systemically as a result of national policy and international foreign policy that are becoming increasingly containerist and less cosmopolitan in its approach.

Urban residents in inner city areas where they are exposed to diversity appear to have voted progressively in London for a Muslim Mayor and to remain within the EU. In London the proportion of people who are employed is higher than in more regional and rural areas where people have less hope of employment.

Similarly, in the USA, big cities like New York are more cosmopolitan because of the concentrations of wealth than the rust belts of USA and the rural areas where people are less exposed to other cultures. In these contexts people voted for Trump.[11] Both Republicans and Democrats did not listen to the people. But the notion of dismantling caring for the commons, or to use the Australian Indigenous expression 'Caring for country', has not accompanied his approach. The withdrawal of funding from Environmental Protection and Welfare are two obvious policy moves that have been made. Neither of these policy moves supports the commons or the public good.

The 'new normal' could be a rise in populism. The notion that Europeans are more open to outsiders and more prone to critical reflection that would ensure that a populist is less likely to be elected is wishful thinking.[12] The 2017 elections in France and Germany returned increasingly small majorities for liberal leaders who face xenophobia by voters who are struggling to make ends meet financially.

Similarly, urban poor population of Jakarta has become increasingly conservative. In Indonesia the backlash of populism results from the feeling that government needs to take into account the needs of the so-called 'little people' who have been displaced as a result of the destruction of villages within the city in the name of 'normalisation', slum clearance and protection from flooding. Ahok received support from the middle classes and elites in Jakarta for his modernising approaches to city planning.

This has resulted in many people being resettled from areas deemed vulnerable to flooding. They have used populism to shape the debate and to punish the architect of the removals, a mayor who was setting himself up to compete in the running for the next president of Indonesia. He appealed to the middle classes and elites, but not to the largely Muslim majority, many of whom had been affected by the removals in Jakarta. This is a context that helps to shape the election for the next president of Indonesia. Many of the mayors and senior public or private sector elites compete for this role. According to Jong (2016), the destruction of a sense of community and the sense of alienation have resulted in populist movements to oust Ahok by stressing that he is not a Muslim and that he has committed acts of blasphemy. The successful removal of Ahok[13] needs to be understood within the context of the competition between haves and have nots, expressed in the cultural idiom of religion:

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[11] The argument is that just as in the Weimar Republic, people were prompted to elect a strong leader, namely, Hitler, and people look to strong leaders when they face what seem to be overwhelming challenges. Paradoxically the election of Trump who is held up as a strong leader in the mould of Vladimir Putin who it has been suggested had an interest in seeing Trump elected to office. The election which brought Trump to office was at the time of writing under scrutiny resulting in the departure of Michael Flynn from government as a result of having conversations with the Russian ambassador and failing to disclose these. See also https://www.theguardian.com/us-news/2017/mar/04/donald-trump-wiretap-barack-obama-coup.

[12] https://www.brookings.edu/wp-content/uploads/2018/02/fp_20180201_normal_is_over1.pdf.

[13] http://www.thejakartapost.com/news/2017/05/16/prosecutors-appeal-ahoks-verdict.html.

> The blasphemy allegation against Ahok has divided the nation and emboldened radical Islamist groups who claim to speak on behalf of all Muslims. It was also instrumental in causing Ahok's defeat in the April 19 gubernatorial election.[14]

Trump's notion of addressing unemployment through building a wall to keep out people from Mexico or from Islamic nations expresses the challenge of the day faced internationally, namely, the challenge to address social inclusion and social justice for all within increasingly diverse nation states.

Thomas Piketty (2015) has focused on class in his examination of the growing gap between rich and poor, and although this is important, it does not go far enough in acknowledging the racial and cultural dimensions of discrimination.

Populist nationalism has expressed the us/them feelings in terms of racial stereotypes as evident in the exit of Britain from the EU, the election of Donald Trump and the increased conservatism in Europe in the wake of terrorist attacks which have escalated in the wake of the wars in Iraq and Syria.

How can a balance between individual and collective rights move beyond the anthropocentric human rights' focus on social justice to a more non-anthropocentric approach to social and environmental justice? The aim of my research is to address everyday decisions. The hypotheses briefly addressed in this paper are:

- The greater the level of (A) local participation, the greater the level of (B) trust and the greater the control of (C) the powerful who have their own monetary interests at heart.
- The greater the level of (A) public education on Nussbaum's ten capabilities for a life worth living, the more likely (B) people are to participate as active agents to protect their rights.
- The greater the level of (A) participation through diverse forms of engagement to protect of local habitat and local living systems as stocks for wellbeing, the greater the (B) level of local employment.

To sum up, participation through awareness and consciousness-raising (McIntyre-Mills 2010) will influence the way in which people think about boundaries. Participation could help them to remake connections with others and the environment through valuing the environment and engaging in healthy relationships (Wynne 1996). It is based on the notion of neural plasticity in that the brain shapes the environment and, in turn, is shaped by the environment (Bateson 1972; Beer 1994; Capra 1996; Greenfield 2000).

Three Cultural Bases for Human Organisation

Humans evolved from primates and we share the capacity for empathy, reciprocity and fairness. Many authors have argued that in fact we evolved through our ability to co-operate and not only to compete (cf. De Waal 2009). Thus the emphasis is on

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[14] http://www.thejakartapost.com/news/2017/05/09/ahok-guilty-of-blasphemy-sentenced-to-two-years.html.

developing a new basis for transforming the way in which we live. The emphasis needs to be on what we all share in common, namely, the need for food, energy, water and safety and the capabilities to live a good life. This is stressed by Nussbaum (2011) who uses the concept of capabilities and wisely avoids too much emphasis on culture per se. Culture is a way to adapt to an environment. It needs to be seen as responsive, rather than as a pregiven. Mary Douglas, a social anthropologist who has inspired systemic thinkers, distinguishes between what is perceived to be culturally 'sacred' and 'profane' and stresses that norms guide social choices and they are reinforced by authority and religion. She argues from a so-called structural functionalist perspective, and according to her, religion has a purpose and is functional for social order. The 'sacred' covers all aspects within the pale (fence) or the boundaries of a culture, and these norms are regarded as 'ethical' and supported by civilised society. The 'profane' covers all those aspects that are *beyond the pale* and pertain to the wild, the 'untamed' or the uncivilised. So this argument begins to challenge the independence of religious values. In some contexts, values are individualistic, and this can support materialism and selfish decisions. In other contexts, the group's values prevail because people are communal, and this can support collective concerns. But God can be invoked to support both individual and collective concerns.

The San and Khoi, for example, draw on a sense of connection with the land animals and believe that egalitarian norms should prevail. They draw power from a sense of their interconnectedness with the land, animals and one another. Fiske (1992) extends the work of Mary Douglas and develops an argument that hierarchies and communal sharing characterise the two axes for guiding behaviour. These are in turn linked with different kinds of relationships associated with treating people as equals and distributing resources equally or alternatively giving a price or value based on benefits or entitlements. He sums up the relationships and ways of organising and implications for ethics and morality as 'community sharing', 'authority ranking', 'equality matching' and 'market pricing':

> The motivation, planning, production, comprehension, coordination, and evaluation of human social life may be based largely on combinations of 4 psychological models. In communal sharing, people treat all members of a category as equivalent. In authority ranking, people attend to their positions in a linear ordering. In equality matching, people keep track of the imbalances among them. In market pricing, people orient to ratio values. Cultures use different rules to implement the 4 models….

Both rational and emotional dimensions are important for ethics. When we place too much emphasis on culture and religion as a basis for the sanctity of choices, we also have to deal with different viewpoints. This is problematic within Western culture and even more so across cultures. This is why I make a case that we are interdependent. Pragmatic recognition of this fact could be the basis for working co-operatively to draw on practical cultural knowledges for the survival of living systems. In this paper I sum up three bases for human organisation (all of which can occur at multiple levels within and across nation states) as follows (Table 12.1).

A way forward needs to foster more trust to narrow the gap between the powerful and the powerless, summed up as follows (Table 12.2).

Table 12.1 Implications of three bases for human organisation for governance and reframing economics by drawing on and extending Fiske (1992)

Trust	Power	Measurement
Face-to-face small subgroup, organisation or community	Large organisation, network or society	Abstractions
Egalitarian community	*Hierarchy and networks*	*Conceptualisation extends the power based on measurements*
Relationships based on reciprocity	Managed by social distance or social mobilisation	Commodification for extraction of profit[a]
Equality matching based on reciprocity and sharing (Fiske 1992)	*Authority ranking and equality matching* (Fiske 1992)	*Market pricing* (Fiske 1992)
Communal sharing	Authority based on a narrative of entitlement to enhance status, equality matching and/or the potential for violence (Fiske 1992)	Money as a symbols of power ascribes value, based on measurement
Stewardship to sustain a way of live	Extraction of resources based on structural violence entitlement	Extraction of profit based on structural violence and market pricing

Table 12.2 Three bases for organisation to address the growing gap between rich and poor and the worsening social, economic and environmental conditions

Local engagement to promote a sense of community to hold the powerful to account and to protect natural and social fabric	Constitutional protection to ensure that the powerful are held to account	Transforming the narrative to ensure that we do not 'mismeasure' our lives (Stiglitz et al. 2010)
Engagement spans arts, science, politics and forms of economics that protect people and the planet	Engagement includes sanctions to uphold the law	Engagement to include positive and negative sanctions to protect living systems
Monitoring 'from below' to protect people and the planet	Monitoring 'from above' to protect people and the planet	Changing the narrative to protect people and the planet through monitoring from above and below through public education to enhance representation, accountability and regeneration

Human Development to Enhance Capability: From Sustainability to Regeneration

'Sustainability' refers to a sustainable local community that is determined by a sustainable region in which food, energy and water supplies are considered as major determinants for wellbeing in 'Wall Street to Wellbeing' (see McIntyre-Mills 2014

and McIntyre Mills, De Vries and Binchai 2014).[15] But 'Planetary Passport' (McIntyre-Mills 2017) makes a plea for leadership to support **regeneration** based on a recognition of who we are and goes beyond sustainable development (Girarde 2015).[16] 'Regeneration' in this context refers to decision-making that fosters biodiversity and living systems within shared and protected habitats. 'Indigenous people' and 'Indigeneity' are concepts that can empower and disempower. Who owns the definition? Whose reality counts (Chambers 1997)? A perspective that emphasises Indigeneity puts the 'last first and the first last' (Chambers 1983) from this perspective. Around the world Indigenous groups exist in different circumstances, some have political rights in the form of treaties or constitutional recognition, some have land rights (often hard won through years of litigation), and some have limited cultural rights recognised limited political representation. Some have none of the above, some are not minority groups, but they have survived a history of colonisation and prefer to see themselves as Indigenous. This is why the United Nations GA 2007, Resolution 61/295 of 13 September enables self-identification. This is certainly the case in South Africa where the majority African culture describes itself as 'Indigenous' not just the smaller minority groups like the San and Khoi. Gunter Pauli (2010: 230–235) explains that natural systems do not work in linear ways. They are cyclical and abhor any forms of waste.

> Nature does not calculate cash flow. While we are obsessed with monetarization (to our own benefit) natural systems generate multiple revenue flows best measured in protein, drinking water, energy resources and defense systems. Nature produces benefit through the calculation of integrated benefit flow…. (Pauli 2010: 235–6)

Instead of valuing profit, we need to think quite differently in terms of so-called wellbeing stocks (Stiglitz et al. 2010). A sustainable local community is determined by a sustainable region in which food, energy and water supplies are considered as major determinants for wellbeing. No community can be expected to transform

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[15] No community can be expected to transform from a high carbon lifestyle (or aspiring to this lifestyle) without feeling part of the design process and owning the decisions as to how resources should be used. Young people (Osler and Starkey 2005), the disabled, asylum seekers and sentient beings (Nussbaum 2006) along with future generations, live 'precarious lives' (Butler 2005). Those perceived as different are not protected (Young 2011). The ability to show compassion underpins cosmopolitanism (Butler 2011). Butler's work stresses 'the need to rethink the human as a site of interdependency'. She emphasises that humanity needs to be able to ask for assistance and we need to be able to anticipate that we will be heard and that people will respond with compassion. Do we wish to live in a world where we do not want to help one another and in which we deny the pain of sentient beings (Butler 2011)? If we are prepared to recognise not our resilience, but our mutual vulnerability, it provides a basis for stewardship. Held et al. (2005) proposed that the core challenges of the day are to address the vast differences in the standard of living between the rich and the poor. The problem is not only one of externalities that are not factored into calculations of the degradation to the environment; it is a way of thinking and 'being in the world' that shifts the extraction of profit to where labour is cheaper and where governments and citizens are less likely to complain about degradation of environment. Short-term profits are made at the expense of future generations.

[16] http://www.theguardian.com/sustainable-business/blog/sustainability-unhelpful-think-regeneration.

from a high carbon lifestyle (or aspiring to this lifestyle) without feeling part of the design process and owning the decisions as to how resources should be used. But if young people can be enabled to tap into 'eco-facturing' in a 'cascade economy' (Pauli 2010) based on finding sources of abundance in nature and in the misdirected systems (Ackoff and Pourdehnand 2001) created by the current economy, then new possibilities can be created. Pauli (2010: 79 citing Peter Drucker) stresses that: 'the needs of the poor are opportunities waiting for entrepreneurs'. Furthermore, the contributions made by those who live simply and well need to be demonstrated and recognised in their planetary passport (McIntyre-Mills 2017).

The Paris Agenda and the UN Declaration of the Rights of Indigenous People

The Paris Agenda for development (1992, 2005) stipulated that all development initiatives need to enable the participation of local people. This is supported by the UN Declaration of the Rights of Indigenous People (1998) that stresses the rights of Indigenous people. It also enables Indigenous people to self-identify as Indigenous, namely, people who are First Nations and who feel under threat in increasingly diverse nation states. This has been used as a means to protect local habitat. The point of this discussion is that democracy and governance are in need of an overhaul. This reaction needs to be addressed through reframing current architectures of economics, democracy and governance to enhance representation, accountability and regeneration of the environment through appreciating that 'We are the boundaries' to cite Donna Haraway (1992).

The potential of enabling people at the local level to have more of a say needs to be explored to address the current impasse summarised below.

Through more monitoring *from below*, local people can have more of a say in creating job opportunities. The Aarhus Convention which stipulates that local people should have a say locally could be scaled up in combination with the United Nations Local Agenda 21 policy and with support of the UN Declaration of the Rights of Indigenous People (1992), and the Helsinki principles for equitable water management (Shiva 2002) could make a difference—if they are co-ordinated into a new architecture for governance.

These three pieces of policy legislation could make a considerable difference to social and environmental justice. Each theoretical concept to inform the bricolage approach to transforming policy will be discussed in turn. Subsidiarity is the principle adopted by the European Union that policy decisions need to be made at the lowest level possible. This is supported by Ashby's rule of requisite variety (1956) which suggests that complex decisions need to match the complexity of the stakeholders. Or to put it simply, people need to draw on their own lived experience, in order to shape policy. Florini (2003) suggests the potential of the Aarhus Convention. I have combined this with the policy potential of the UN Local Agenda 21 and other

policies detailed below, such as the Paris Development Agenda and the UN Sustainable Development Goals. Thus the participatory action research aims to:

> [A]ddress the challenge posed by the Earth Charter: "Everyone shares responsibility for the present and future wellbeing of the human family and the larger living world". (Cited by Hayden in Wallace Brown and Held 2010: 368)

The challenge is to move beyond the rhetoric of cosmopolitan citizenship and to address both justice and sovereignty. The nation state needs to be held to account by an Earth Charter that is supported by overlapping regional institutions (supported by inclusive regional research institutions, policies, the rule of law including parliaments and courts). Co-determination in regions needs to be based on a new architecture for governance, democracy and ethics.

The Aarhus Convention (1998)[17] ensures that local people have a right to information and a right to speak out. It is a Danish convention that has been applied by other members of the European Union. They also have the right to be heard, and if they are not heard, then they can go to the EU parliament or court.

Unemployment needs to be addressed in ways that enable people to have a local say in the way that they live and work. But in order to prevent populist decisions, it is important to enable people to understand the consequences of their decisions through more local engagement in scenarios. I argue that this needs to be supported by local governments within postnational regional biospheres. This approach could help to address the impasse caused by the limited measures to ensure that the rhetoric to support change towards a more sustainable economy is achieved. Key concepts for praxis.

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Planetary Passport (2017) discusses research aimed at piloting and testing out new architectures for democracy and better governance through:

Addressing the issue of a priori norms and a posteriori measures for transformation towards regenerative living.

Finding ways to match social, cultural, economic and environmental decisions to perceived needs with a focus on food, energy and water security.

Narrowing the gap between perceived needs and the way resources are distributed and the way it impacts on service outcomes.

Previously oral histories connected people to their place and the wisdom of the elders was handed down to the next generation through remembering the vital social, economic and environmental information needed to survive. Cultural memory was aided by association with myths and landmarks. Ritual, song and artefacts reminded people of knowledge they needed to survive (Kelly 2016).

Triple bottom-line accountability refers to Elkington's (1997) notion that social, economic and environmental indicators are required to prevent the pursuit of profit at the expense of people and the environment. Stiglitz et al. (2010: 15) extend the notions of triple bottom-line accountability to include the multidimensional measure to address the following dimensions of wellbeing stocks.

'Wellbeing stocks' refer to a raft of measures to protect people and the planet. The United Nations Local Agenda 21 (1992) provides a way to enable local governance to be scaled up to enable local engagement to address social, economic and environmental goals and thus could provide a way to address the UN Sustainable Development Goals.

The aim of the concept of wellbeing stocks is to enable people to re-evaluate economics and to become more aware of the way in which we neglect social and environmental aspects of life. The pursuit of profit at the expense of people and the environment is a central problem for democracy and governance. Similarly the Tuvalu test (Murray 2007) is based on a deep understanding if interconnectivity of living systems and flows explains that policy decisions that influence everyday choices have an impact on our neighbours. These impact on our global footprint which has a flow on effect for our neighbours.[18]

Specifically the research responds to the policy context,[19] in order to achieve better forms of distributive governance to address the UN Sustainable Development Goals and adapted from Murray et al. (2007) who developed the so-called Tuvalu test, Local Agenda 21, Triple bottom-line accounting (Elkington 1997) and in line with Hayden (2010: 369):

> "United Nations Local Agenda 21 and variants that strive to scale up triple bottom line accountability not only at a local-level, but whether networks of local organizations internationally could effectively the approach. 2a Accept that with the right to own manage and use natural resources comes the duty to prevent environmental harm and to protect the rights of people. 9a) Guarantee the right to potable water, clean air, food security, uncontaminated soil, shelter, and safe sanitation, allocating the national and international resources required.10a) Promote the equitable distribution of wealth within nations and among nations. The Aarhus convention is a means to implement 13a [in order to] uphold the right of everyone to receive clear and timely information on environmental matters and all development plans and activities which are likely to affect them or in which they have an interest".

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[18] Addiction to coffee can be linked with using coffee grinds to grow mushrooms, the plastic containers could be replaced with biodegradable options derived from local plants, and tin cans can be used as the insulation for building walls and for creating decorative artefacts in creative co-operative hubs for artists.

[19] Anthropocentrism and humanism need to move towards respect for Biodiversity (Nagoya Summit in Japan in 2010). The purpose of this chapter is not to rehearse the same arguments about rights and responsibilities—these are taken as a given. This paper is also not about 'what is the case' or 'what ought to be the case'. Instead it takes it as given that social injustice and inequality exist and that the disappearance of biodiversity will make a difference to the eco-systemic web of life and to human wellbeing. The loss of insects, such as bees along with greed and hubris, will impact on food security—just as it will jeopardise seed security. Instead this research is located in the domain of how to develop a new architecture in response to Dahl's (1967) pessimism about extending the scale of democracy and governance.

He goes on to say that:

> "13b supports local, regional and global civil society, and promote the meaningful participation of all interested individuals and organizations in decision making" (cited by Hayden in Wallace Brown and Held 2010: 369). …Common Future and UN Declaration of Human Rights and Earth Charter in particular—4a. Recognise that the freedom and rights of each generation is qualified by the needs of future generations. 6c. Ensure that decision-making addresses the cumulative, long term, indirect, long distance, and global consequences of human activities".

Shiva (2002) in her book *Water Wars* also stresses that the future of governance rests on managing flows as does her book *Making Peace with the Earth* (2012). Her work on water management can be seen as a synecdoche for transformational governance to support social and environmental justice (McIntyre-Mills 2017). In 'Planetary Passport' I discuss the way in which people previously connected with the land, because they relied on it for their survival in a much more direct way that they do today. This process of forgetting has resulted in extreme forms of thinking that externalise our impact on people and the environment. Water flow is a synecdoche for this approach to praxis for social and environmental justice. It explores the implications of urbanisation, loss of territory and loss of species and the implications for living systems of which we are a strand.

New designs need to foster human capabilities (Nussbaum 2011) through learning that factors in the need to take living systems into account and to reconsider our place within learning systems. Human beings have controlled and determined the landscape of knowledge. The more powerful members of society become the custodians and determine what constitutes knowledge.[20] Questioning the consequences of our choices for human beings and other living systems is a central concern for policymakers. When we reconsider the boundaries of what constitutes knowledge, we need to realise that the capability to design responses to areas of concern rests on our ability to ask questions based on considering 'if-then scenarios'. The contribution made by West Churchman (1979) remains relevant.

Design of Inquiring Systems Enables the Extension of Policy Boundaries to Address Systemic Problems

The Design of Inquiring System (DIS) is a process that builds on West Churchman's work (1971, 1979 and 1982) to enhance our capability to work with many different kinds of knowledge. It is a means to enable us to 'think about our thinking' and our practice and to enable us to 'join up the dots'. It applies dialogue to consider ideas

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[20] But we also need to realise that democracy needs to ensure that structures are in place to hold the powerful to account and to ensure that constitutions provide the structures that support respectful dialogue that makes the best use of different kinds of knowledge and that human knowing needs to be considered as a double-edged sword. We have shaped the planet in ways that are no longer sustainable and it is time to appreciate that we are merely a strand within a web of living systems.

with stakeholders through asking questions in order to unfold ideas and values and to sweep in the social, cultural, political, economic and environmental factors. West Churchman's student Werner Ulrich has designed 12 questions which focus on what is the case and what ought to be the case, in order to guide better decisions. The stakeholders and the environment of the problem are considered carefully in the questioning process.

Ulrich and Reynolds (2010) distils the work of West Churchman's DIS approach into 12 is/ought questions that help to shape boundary judgements when working with stakeholders and different kinds of knowledge (logic, empiric ism, idealism, dialectic and pragmatism), but it does not go far enough.[21]

Policy based on idealism is shaped by moral law. It is a priori, because the moral law sets out one's duty, based on *prior* decisions on what constitutes ethical behaviour. The test for the moral law is being prepared to live with the decisions as if they were to be applied to oneself and one's own children. The policy implication is the need to develop our human capabilities as (Nussbaum 2006) to think differently about human capabilities—caring for people and the planet and to be less anthropocentric. Design for biomimicry development and de-colonisation needs to foster regeneration and gender mainstreaming.

Emergence is the ability to escape the trap of our own thinking, to cite Vickers in Beer (1994: 252): 'the trap is a function of the nature of the trapped'. According to his theory of 'recursive consciousness', we are able to emerge from our entrapment through making connections and realising that we have the capability to achieve transcendence as we become more conscious. One way out of the trap is to become more creative in our thinking and more open to learning from the environment, even if we do not mimic it! According to the biomimicry website. One way out of the trap is to become more creative in our thinking and more open to learning from the environment, even if we do not mimic it! According to the biomimicry website:

> "Biomimicry is an approach to innovation that seeks sustainable solutions to human challenges by emulating nature's time-tested patterns and strategies. The goal is to create products, processes, and policies—new ways of living—that are well-adapted to life on earth over the long haul… Animals, plants, and microbes are the consummate engineers. After billions of years of research and development, failures are fossils, and what surrounds us is the secret to survival".[22]

Bacchi (2000, 2010) argues that the way forward is to characterise the discourse of women and marginalised groups as 'action words'. Social planning for women and other marginalised groups calls for practical ways to address 'us/them thinking' to enable their life chances through transforming dualistic structures.[23]

If we are prepared to recognise opportunity, the potential for resilience and also our mutual vulnerability, it provides a basis for stewardship.

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[21] Ulrich's 12 questions to enable policy design based on Churchman's Design of Inquiring Systems Boundary Table 2.1: The boundary critique and questions. Source: Ulrich and Reynolds 2010: 244.

[22] https://biomimicry.org/what-is-biomimicry/.

[23] **Dualism is** based on thinking in terms of body and mind, us and them. It results in dividing self from other (including sentient beings) and from the environment. It also results in dividing thinking from practice.

The cascade economy is based on emulating nature. Imagine a block of flats designed to follow natural flows. Rain falls and is collected on rooftop gardens where rain tanks channel water for drinking, and grey water can be used to flush toilets and filtered to be reused for growing food. Gardens could be extended to sides of building, on bridges across buildings and in basements. Natural materials could be used, such as mud, cow dung, thatch and bamboo. Termite mounds could be used as templates for designing air flow, and maggots could be used to process waste. Maggots also provide wound care and a natural healing agent! These ideas and more are explained by Gunther Pauli (2010) and William McDonough[24] who developed the Hannover Principles to encourage better design for living in 1992.

Those who live sustainably could be rewarded through measuring their low impact and be afforded points on a resilience score card linked with a passport which indicates transparently what a low footprint they have and the extent to which they are contributing socially, culturally, economically and environmentally. This is an active and practical way to become engaged citizens. It addresses the plea made by Pikketty for transparency. It will make it quite clear that the poor are not the problem as far as global warming is concerned.

Instead of building unsustainable businesses, schools and universities, a new approach is needed through a curriculum and infrastructure that support education and training to protect scarce resources, prepare students in terms of literacy and numeracy and address the current challenges—namely, the need to feed and clothe a growing (unsustainable) urban population. A new transformational agenda is needed to meet the needs of young people and to prepare them in ways that protect and regenerate the environment on which they depend.

Kabeer's Social Relations Approach (see March et al. 2005) helps to justify the policy-as-discourse argument in framing the interests of the marginalised (Chambers 1983, 1997) by understanding the duty of the state to provide a decent quality of life that supports Nussbaum's ten central capabilities.

Her approach to 'institutional analysis' from the household, community, market and state provides the framework in which Nussbaum's capabilities approach can be analysed to ensure gender equity is achieved by institutions (March et al. 2005) spanning the state, market and civil society, including the volunteer sector, the community and the family/kinship.

The state constitutes the government, legal and security frameworks governing the state and the lower government bodies and line agencies. The market includes such institutions as private businesses, both local and foreign, operating and/or affecting primarily the state's financial and economic affairs. The community comprises of all organisations directly and indirectly outside the realms of family/kinship. They may be formal and informal groups where families and individuals interact, depend on each other and take leadership roles, when afforded the chance. Lastly, the family/kinship level includes couples/partners, siblings and extended families related both by consanguinity and affinity.

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[24] http://www.archdaily.com/804110/william-mcdonough-on-sustainability-carbon-is-not-the-enemy?utm_medium=email&utm_source=ArchDaily%20List.

The institutional analysis enables discourse analysis (Bacchi 2010) in order to support informed policy planning informed by Churchman's idea of 'sweeping in' as many interrelated issues as possible and unfolding the values of the diverse stakeholders by asking 12 questions that expand the sphere of the decision-making boundary to include the 'involved and affected' (Ulrich 1983) in planning and designing process.

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Steps for Public Education to Support Nussbaum's Ten Capabilities and to Address the Frontiers of Justice Through Engagement and Critical Questioning

To rescue the enlightenment from itself (McIntyre-Mills 2006), we need to remember that good questions can only be asked when conceptual systems are open:

> 'The systems approach begins first when you see the world through the eyes of another', according to West Churchman (1979), and then he stresses we need to realise that every world view is limited, including the so-called systems approach!

Irony is evident in West Churchman's approach which is a good starting point for not taking oneself too seriously, in order to be open to listening to others.

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[25] **Emergence is** the ability to escape the trap of our own thinking, to cite Vickers in Beer (1994: 252): 'the trap is a function of the nature of the trapped.' According to his theory of 'recursive consciousness', we are able to emerge from our entrapment through making connections and realising that we have the capability to achieve transcendence as we become more conscious. One way out of the trap is to become more creative in our thinking and more open to learning from the environment, even if we do not mimic it!

This is not to deny the importance of values or being concerned about issues, but it does require being open to hearing the ideas of others. Values and assumptions are the very essence of what it is to be human. Churchman is playing on the notion that our assumptions and values make us human. Our values can also shape what we regard as acceptable and unacceptable. The same holds true for other human beings.[26]

A more practical and systemic approach is vital. People who are excluded and traumatised as a result of their identity will see themselves in terms of being a woman, a refugee child and an excluded Black student from a rural background. Bryson and Mangcu (2016) stresses the need for sociology to take into account the views of African scholars who have contributed to politics and literature, such as the first African writer Tiyo Soga, the Xhosa Poet who wrote Nkosi sikilele and Pixley Ka Seme the lawyer who founded the precursor of the ANC. This is important if we are to move towards appreciating the role of culture in shaping the identity of South Africans.[27]

The ability to work with many ways of seeing requires the ability to think about multiple texts and contexts and to develop a way to respect situated knowledges to the extent that the approaches do not undermine the rights of others or the environment. The notion that a good meal is meat and three vegetables needs to be revised, even if it just acknowledges that kangaroos are better adapted to the environment than cattle. The fact that cattle are dying of heatstroke in Australia is not an indicator only of the need to change the way in which we manage livestock; it is also necessary to think about what we eat and why. The high methane output of livestock impacts on emissions, so perhaps the wellbeing of living systems would be enhanced by eating more protein from pulses (Shiva 1989) and mushrooms (Pauli 2010).

Transformative education need to address the areas of concern, namely, representation, accountability and regeneration through reconsidering relationships with others and the land. In education this can be fostered through encouraging three levels of learning about environments and citizenship, as follows:

Level 1

- Working adequately within one paradigm but without the ability to think about the limitations of thinking in terms of only one framework

Level 2

- Comparing citizenship and other concepts across different contexts such as across time and place

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[26] Vogel, E, Meyer, C. and Eckard, R. 2017. http://theconversation.com/severe-heatwaves-show-the-need-to-adapt-livestock-management-for-climate.

[27] https://en.wikipedia.org/wiki/Samuel_Edward_Krune_Mqhayi author of Inkosi Sele I Afrika.

Tiyo Soga—Presbyterian missionary who married a scots women and worked as a missionary in Eastern Cape. Soga was the first black South African to be ordained and worked to translate the Bible and John Bunyan's classic work *Pilgrim's Progress* into his native Xhosa language.

Level 3

- Reframing citizenship and what it means to serve people and the planet based on understanding that we have three options for human behaviour, namely, competition, co-operation and a realisation of interdependence

In rural and regional areas, the local plant materials, for example, could be used for developing a range of products spanning pharmaceuticals, cosmetics, cleaning agents, building materials, fabrics, plant dyes, paper and biodegradable plastics, to name but a few examples. In urban developed areas, the blue economy could be used to recycle and reuse materials for building sustainable housing powered by sustainable energy and supplied with carefully collected rainwater to support indigenous plants wherever possible in the urban environment.

It is proposed that an additional subject is provided based on critical systemic thinking and practice from early childhood to secondary and tertiary level schools supported by the best teachers who foster education, along with apprenticeships from the age of 16, ongoing education until 18 and then full-time employment opportunities linked with a series of education and vocational hubs spanning rural, regional and urban areas. Policy refers to who is included and excluded in the decision-making on who gets, what, why, how and to what effect. Policy needs to be 'tried out'/piloted through ongoing learning. Policymakers need to work with stakeholders in ways that explore their assumptions and values based on local, lived experiences of what works, why and how.

Co-determination in Regions Needs to Be Based on a New Architecture for Governance, Democracy and Ethics[28]

This user-centric policy approach starts with the axiological assumption that local knowledge is relevant and that the intention of policy needs to privilege the perceptions of service users to the extent that their diverse ideas do not undermine the rights of others. This policy needs to be framed and reframed, in terms of:

- Content, context, structure and process
- A priori norms and a posteriori measures of performance
- Many ways of knowing: logic, empiricism, dialectic and pragmatism

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[28] The design is sketched in 'Wall Street to Wellbeing' and 'Systemic Ethics'. West Churchman's critical and systemic Meta approach to working with, rather than within the boundaries of a single paradigm, inspires my work. I draw on several approaches that locate Nussbaum's ten central capabilities—relevant to all sentient beings (Nussbaum 2011: 33–34). Nussbaum includes the rights of the most powerless and voiceless. They are young people, children, asylum seekers, the disabled and sentient beings who are commodified and traded. The need to address capabilities to protect the planet is extended in this approach by addressing planetary rights and the inadequacies in current architectures of governance and democracy. A case is made for the social contract to be extended beyond the nation state to represent social, economic and environmental justice concerns.

The suggested architecture detailed in 'Planetary Passport' (2017) is summarised below (Table 12.3).

Transformation in Praxis to Protect the Commons Through Engagement to Protect Living Systems

The notion that organisational culture in the public, private and third or volunteer sectors either supports or undermines systemic learning is increasingly relevant in positioning sectors to respond to contemporary challenges in ways that reframe neo-liberal economics, because it is based on a form of dualism that is not only unethical and unsustainable but inherently flawed. The increasingly rigid approaches to management within organisations do not lend themselves to the creativity needed to address the current challenges.[29] Ulrich's systemic approach to governance is the most helpful as it sums up Churchman's Design of Inquiry approach to planning and decision-making, and Bacchi's questioning is the starting point for debunking control from above as a first step towards protecting the commons. According to Bollier and Helfrich (2012: xvii):

> "The commons is a 'discourse which helps get us outside the market economy and helps us represent different more wholesome ways of being. It allows us to more clearly identify the value of inalienability—protection against the marketization of everything. Relationships with nature are not required to be economic, extractive and exploitative, they can be constructive and harmonious. For people of the global South, for whom the commons tends to be more of a lived, everyday reality than a metaphor, the language of the commons is the basis for a new vision of development….notwithstanding the longstanding smear of the commons as 'tragedy', the commons, properly understood, is in fact highly generative. It creates enormous stores of value…the commons tends to express its bounty through living flows of social and ecological activity, not fixed countable stocks of capital and inventory".

Bollier and Helfrich (2012: xii) go on to stress:

> "We are commoners—creative, distinctive individuals inscribed within larger wholes. …
> As the corruption of market/state duopoly has intensified, our very language for identifying

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[29] As such it goes well beyond the previous notions of knowledge management as conceptualised by Nonaka and Takeuchi (1995) centred on solving problems within the workplace and translating the tacit learnings into experiential knowledge that could give businesses a competitive edge. The quality learning circle approach in Japan enabled workers within the white goods industry of photocopy industry to rethink ways to extend their market share and thus preserve jobs. It is informed by Etienne Wenger (1998), Etienne Wenger et al. (2009) who conceptualised communities of practice as a way to enable people within and beyond organisations to form communities based on sharing ways to address an area of concern based on reciprocity. As a social anthropologist, he was aware of the anthropological research on giving and receiving. The idea that a 'gift' requires a return is widespread (see Marcel Mauss (1990/1922, 'The Gift'). Those who do not return information or assistance soon become more peripheral members of a situated community of practice. Also Peter Senge (2006) develops a more systems-oriented approach to learning and learning communities beyond the organisational context. He stresses the need for team learning based on specific skills that enable working across disciplines and pooling different skills.

Table 12.3 Architecture for governance in overlapping domains to maximise changes towards a more sustainable future

	Structure	Process	Action
Micro-level individuals	Capabilities of human and sentient beings protected at the local level through agency and advocacy. Their rights to quality of life and the responsibility to protect decent standards through local structures need to be supported by the principle of subsidiarity and stewardship through an adapted form of the Aarhus Convention (see Florini 2003; Nussbaum 2006, 2011). Public education needs to enhance public advocacy and the application of Nussbaum's ten capabilities	Questions raised and posed to local government by individuals who invoke the UN 2030 Agenda and linking personal troubles as public issues relevant to the whole of community spanning social, economic and environmental concerns (Layard 2005) to support green democracy (Dryzek 2010), the global commons and human rights (Ertuk and Purkayastha 2012)	Local government, NGOs and individuals (see Florini 2003) to regenerate local habitat to support living systems
Meso-level states and regions	Aarhus Convention (1998) linked to Global Covenant	Monitory democracy and governance to address state/market/civil society concerns from below (Keane 2009) to protect human and animal habitat as part of a dynamic living system (McIntyre-Mills 2017)	Networking NGOs and INGOs to address representation and accountability (Carens 1995)
Macro-level cosmopolitan governance	Legal structures to protect the global commons and social justice (Hayden 2010) Structures to support the Global Covenant such as a scaled up Aarhus Convention and Biospheres Convention	The International Criminal Court and the United Nations to support 'world environmental citizenship' (Hayden 2010)	Global action to pass laws to protect social and environmental justice in overlapping biospheres informed by legal imagination and social engagement (Fourade and Savelsburg 2006)

Source: Adapted from Archibugi (2010: 322, cited in McIntyre-Mills et al. 2014: 92 and updated in McIntyre-Mills 2017a, b, c)

To sum up, governance and democracy have to deal with three options pertaining to truth:

One truth (monist) responses defended by grand narratives.

No truth (postmodernist) approached defended by relativism or conflict.

Mediated (co-created) responses based on stewardship and testing out ideas with professional experts, people with lived experience of many kinds of knowledge, including an appreciation of animal knowing, which could be vital for enhancing our resilience. Held's *Global Covenant* and Shiva's on *Earth Democracy* provides a macro level approach to protecting the global commons based on social democratic control to protect the common good and the global commons. The will to make a difference is the challenge (Held 2005: 33–34):

"We may lack the will but it cannot be said that we lack the means. …What do we require to make a substantial difference to the basic wellbeing of the world's poorest? Again the statistics are available. Required would be six billion per annum on basic education, nine billion per annum for water and sanitation, 12 billion per annum for the reproductive health of women, 13 billion per annum for basic health nutrition…These figures are substantial, but when judged against the major consumption expenditure in the US and EU they are not beyond our reach. Moreover, if all the OECD agricultural subsidies were removed and spent on the world's poorest peoples this would release some 300 billion per annum ….. In addition, a small shift between military and aid budgets–900 billion and 50 billion a year globally would make a marked difference to the human security agenda.…"

> problems and imagining solutions has been compromised…Such dualisms as 'public' and private and state and market and nature and culture, for example, are taken as self-evident. ….Those either/ or categories and the respective worlds we use have performative force. They make the world. In their very moment we stop talking about business models, efficiency and profitability as top priorities we stop seeing ourselves as Homo economicus and as objects to be manipulated by computer spreadsheets. ….."

The ontology of the commons is about the nature of reality and how it can be regenerated in the wake of the dualistic ways in which we have thought about ourselves, others and the fabric of life of which we are a part. Instead of emphasising sustainability as a form of 'victory', we need to think of it in terms of interdependency and relationship (see Butler and Athanasiou (2013) and Nussbaum 2011).

'Anthropocentrism' refers to a human-centred approach that disregards other living systems. The key concepts for a transformative educational approach need to be based on non-anthropocentricism. This means focusing on ways to protect the habitat of all living systems. The approach takes the next important step in the research agenda, to link the notion of relationships across humans, animals and the land as a source of Indigenous and non-Indigenous wellbeing and the broader societal need for environmental protection and effective ecosystem management of domestic, liminal and so-called wild or natural habitat (Donaldson and Kymlicka 2011).

The Anthropocene is characterised by rapid urbanisation and unsustainable development. According to the United Nations World Urbanisation Prospects (2014) in 2014, 54% of the world population was urban, and by 2050 66% of the world's population is projected to be urban if current trends continue. Better urban governance needs to ensure that cities remain liveable and sustainable during and after the development process.[30]

The historical decision taken in Paris to limit emissions below 2 degrees and to enable all 200 participating nations to agree is perhaps the most heartening decision this year, alongside the role of the German PM's example of agreeing to take refugees from Syria, even if border controls were later tightened. It was an

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[30]Another central concern that urban governance schemes need to consider is the balancing of resources to meet both state and individual needs and goals. Land usage, either for agricultural production or for urban development, strategies and policies need to be well informed to ensure not only optimal production is achieved but also elements of justice and equity prevail for a balanced development. Thus the critical systemic approach addresses production, consumption, evaluation and policy based on participatory democracy and governance that are user-centric. Modern society becomes increasingly divorced from the environment in modern cities where people become 'lost' within the concrete and tarmac spaces separated from other living systems and without a daily ritual of spiritual connection to people and place. The question needs to be asked whether the resurgence of fundamentalist religion is a response to fundamentalist economics. Is this a response to the lack of connectivity?

example of moral leadership.[31] The challenge is to balance both the individual and the collective.[32]

The so-called rational enlightenment agenda has created a sense of entitlement and rights without a sense of responsibility by the elites who have benefited from the system. It also could make it clear which sectors of the global population are able to contribute socially, culturally, economically and environmentally through measuring their contributions and demonstrating the extent of the responsibility. Table 12.4 summarises the challenges.

Spirituality refers to the sense of the sacredness of living systems and that human beings are part of a continuum of life. In preliterate hunter-gatherer society and agricultural society, people relied on the seasons and the landscape for their survival and made sense of the world through myth, magic and religion. They reminded themselves of their links to the land through ritual and oral history sung and handed down from one generation to another.

This is the first step towards a sense of humility and compassion, rather than hubris and ruthless exploitation demonstrated by current exploitative economics, described by Kenneth Boulding (1966) as so-called 'cowboy' economics as opposed to economics to protect spaceship Earth. Despite the lack of gender sensitivity, many of Boulding's ideas are worth restating, in his words (Boulding 1966: 6):

> The essential measure of the success of the economy is not production and consumption at all, but the nature, extent, quality, and complexity of the total capital stock, including in this the state of the human bodies and minds included in the system. In the spaceman economy, what we are primarily concerned with is stock maintenance, and any technological change which results in the maintenance of a given total stock with a lessened throughput (that is, less production and consumption) is clearly a gain. This idea that both production and consumption are bad things rather than good things is very strange to economists, who have been obsessed with the income-flow concepts to the exclusion, almost, of capital-stock.

The shift in governance needs to be towards new approaches to protect collective interests and the global commons within postnational regional biospheres as detailed in Planetary Passport (McIntyre-Mills 2017) as follows (Table 12.5).

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[31] The bombing of Syria by France and now the UK in response to the atrocities in Paris in 2016 provide low points in the past year. The impact of drought has been cited by some as one of the reasons for the war in Syria which had experienced one of the worst droughts in a decade which resulted in migrations to the cities; others disagree (Pearce 2015: 26). But it is undeniable that as resources decrease, conflict in congested ghettoes and camps will result in conflict and that the conflict in Syria and the Sudan was also linked with the political issues and a government system that lacked transparency and fairness.

[32] The prospect of 65% of South African's living in cities has implications for food, energy and water security. UN estimates that 71% will be in cities by 2030 and 80% in urban areas by 2050 if current rates maintained—Rand Daily Mail, 26 May 2015.This will impact food security in cities but also place a strain on in infrastructure–Oxford Research Group on Sustainability, 2014. This requires addressing sustainability at the local level in municipalities. For this to occur, people need to have a voice and feel that they have a right to voice their ideas openly and need to address food security through regeneration and support of a closed loop of production consumption and evaluation that reframes socio-economics as environmental economics.

Table 12.4 Transformation steps forward and backwards: impasse

Steps forward	Steps backwards
• Spirituality, non-anthropocentrism and appreciation of living systems • Indigenous notions of citizenship for protection of people and the planet • Protection of local knowledge, local habitat and biodiversity • Liberative potential of Aarhus Convention for ongoing engagement—Florini (2003) and Benito Cao (2015) • Liberative potential of constitutions that protect both people and the planet—Benito Cao (2015) and Michael Hardt (2009) • Training in democracy and political engagement beyond so-called representative democracy which is very limited—need engagement to ensure that people understand the implications of choices. This will make the populism of Trump[a] and Le Pen more transparent—Michael Hardt (2010) and McIntyre-Mills (2017) • Valuing human rights and capabilities for all sentient beings (Nussbaum 2011) • By valuing living systems as the basic fabric of life (Shiva 2012a, b) • Universal Declaration of Human Rights • Earth Constitution for Ecuador and Bolivia • Triple bottom line and wellbeing stocks need to be monitored from below and from above to ensure that they do not lead to 'greenwashing' • Legal architecture is needed to implement change. Water flow is a synecdoche for this approach to praxis for social and environmental justice	• Neoliberalism supports corporate citizenship, supports property and commodifies living systems • Work continues to be characterised by a lack of permanency and short termism • The potential breakdown of engagement through populism dulling the mind of the voter (Rorty 1999) • The cynical use of constitutions as rhetoric in Ecuador and Bolivia • Governmentality moves within the UN to use labelling and self-monitoring • Measurements of nature lead to commodification and greenwashing the notion of sustainable development goals • UN moving towards labelling and self-monitoring in the UN Global Compact (2000) with less emphasis on corporate liability in International Criminal Court. Individuals and corporations can decide to change • Lack of support for regeneration • Donald Trump road on the wave of concern about mechanisation by stressing a nationalist response. In some ways his dismantling of the TPP is not a bad outcome as critics on the left have stressed that it was developed without respect for commoners

Source: Extended table based on McIntyre-Mills 2017, in press 'Recognising our hybridity and interconnectedness: Implications for Social and Environmental Justice' *Reconsidering Contemporary Sociology*

[a]Donald Trump road on the wave of concern about mechanisation by stressing a nationalist response. In some ways his dismantling of the TPP is not a bad outcome as critics on the left have stressed that it was developed without respect for commoners. See also https://www.theguardian.com/commentisfree/2017/jan/24/donald-trump-tpp-trans-pacific-partnership-president-hillary-clinton

Table 12.5 Evolution of democracy and governance to support trust and stewardship

Governance factors outline by Van der Waal (2016)	New architectures for people and the planet by McIntyre-Mills (2017)
Accountable to	Living systems
Policy tool	Co-determination
Role of government	Steward eco-facturing
Style	Postnational cascade economies
Accountability	People and the planet
Goal	Protection of wellbeing stocks

Source: A new architecture in column 2 extends the governance approaches outlined by Zeger Van der Waal in column 1 (see Flinders Symposium, April, 2016)

Protection of so-called *stocks for wellbeing* (Stiglitz et al. 2010) ought to be the focus of economics. Human beings are a strand in the 'web of life' (Capra 1996). In urban, secular society, we forget our place in the universe, and we need to remind ourselves of our dependency and interdependency. In modern industrial and postindustrial society, people make sense of the world in terms of science and believe that they can design solutions to suit anthropocentric needs. We need to rediscover the wisdom of earlier human beings who understood their dependency on plants and animals.

The Sydney Peace Prize winner Vandana Shiva (2002) sums up the challenge for this century as one of preventing the commodification of life and stresses the need to learn from nature and across disciplinary specialisations. Transformative praxis needs to be based on critical heuristics and pragmatic action learning to address practical areas of concern based on questioning and an 'ecological mindset' (Bateson 1972). This means working to achieve transformation from level 1 learning based on thinking in terms of a specific paradigm to level 2 learning based on making comparisons to level 3 learning that fosters thinking creatively and making changes to protect and regenerate the environment. The process for education of this type is based on listening and thinking in terms of the short medium and long term. World views need to be transformed through the will to identify with others and the environment. 'Habitat' refers to the living spaces for human beings and other living systems which we share and on which we are mutually dependent in overlapping biospheres.[33]

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[33] We are human and animals, who have rights and responsibilities to care for humanity and other species as we are one strand of a living system. 'Social contract' refers to protection of citizens within the boundaries of a nation state. According to the United Nations High Commissioner for Refugees, Guterres (UNHCR 2014; Rusbridger 2015), for the first time since the Second World War, the global figure for displaced persons has now passed 50 million, and, by 2050, this figure could be as high as 150 million (Rusbridger 2015: 13). And yet the needs of the displaced are not addressed through the current architectures of democracy, governance and education. Surely it is time to reframe the social contract and to support public education to enable people to join up the dots.

The argument is that the election of nationalistic leaders and a return to tribalism are results of emotional[34] 'zero-sum'[35] responses to global markets that have protected the few at the expense of the many as demonstrated by Brexit and the election of Trump in two neo-liberal democracies that set an agenda for other electorates.

The central argument developed in this paper is that local people have always survived by living on local environments which they control. They are likely to protect these environments because they bear the negative consequences.

They are less likely to extract resources in ways that affect people and the planet in negative ways. This is evident if we consider examples of multinational corporations who pollute the environment, extract resources and damage the social fabric in the bid to extract profit in the short term. The organisational response to a problem may be to respond to the effects, rather than the causes of the problem. Churchman (1979, 1982) stresses the need to consider the environment of the problem.

So when considering institutionalised bullying and violence within workplaces, schools and aged care facilities, it is necessary to consider the wider structural context of violence and the way it plays out at a personal, interpersonal and interspecies level.

Methodology to Support Policy and Every Day Decision-Making that Sustains a Viable Economy Through Law and Governance

The terms intra-, inter- and cross-disciplinary will be explored; this is one suggestion to consider (McIntyre-Mills 2017) (Table 12.6).

In this paper the case is made that all three of these approaches have a role to play and that they can be seen to be supported by a multiple mixed methods approach (Romm 2018). The concept of MMMR helps to locate the approach of expanded pragmatism for ethical thinking and practice. Planetary Passport discusses research aimed at piloting and testing out new architectures for democracy and better governance through:

- **Addressing** the issue of a priori norms and a posteriori measures for transformation towards regenerative living
- **Finding ways** to match social, cultural, economic and environmental decisions to perceived needs with a focus on food, energy and water security

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[34] The emotions are expressed in new forms of identity politics that expresses the polarising of the politics into interest groups, such as being unemployed, women's rights, rights of minorities and in some contexts use the rhetoric of culture and demographic profiling.

[35] 'Zero-sum approach' is expressed as competition across species, classes or sovereign states that needs to be set aside in recognition that we are part of one web of life—that we are interdependent and that all sentient beings have rights. As stewards, human beings have the additional responsibility to care for the land on which we all depend. Exclusive politics will prevail for as long as people think in terms of zero-sum paradigms, rather than comprehending that they stand or fall together and that we are co-determined by the environment of which we are a part.

Table 12.6 Intra-, inter- and cross-disciplinary

Defining intra, inter- and cross-disciplinary approaches	Inter-disciplinary	Cross-disciplinary
Working with the assumptions and values within a bounded system	Working across the assumptions and values across open porous conceptual boundaries	Working across the assumptions and value of bounded systems
Creativity is limited to a single paradigm	Creativity is fertilised through comparing, contrasting and creating syntheses and new integrations	Creativity is informed by respecting differences and spaces where diversity is fostered

- **Narrowing the gap** between perceived needs and the way resources are distributed and the way it impacts on service outcomes

Previously oral histories connected people to their place, and the wisdom of the elders was handed down to the next generation through remembering the vital social, economic and environmental information needed to survive. Cultural memory was aided by association with myths and landmarks. Ritual, song and artefacts reminded people of knowledge they needed to survive (Kelly 2016). In preliterate society, knowledge was coded in many forms and could be recalled in more integrated ways albeit at varying levels of detail for those who were initiated.

Designing Policy Responses to Address Exclusion, Unemployment and Poverty by Enhancing Representation, Accountability and Regeneration

We need to foster the ability to think about what, why and who is included or excluded. Matching the right design response to an area of concern is the challenge! This goes beyond merely thinking in terms of inputs, through puts and outputs and thinking about the values of different stakeholders who view the same area of concern through different lenses. When the area of concern spans many interrelated variables that are perceived differently by stakeholders with strong emotional responses, it becomes increasingly challenging to find answers unless one adopts a situated approach to address the contextual needs of those who are going to be affected by a policy decision.

This is why a great deal of my research to date has been undertaken to address decision-making in terms of the principle of subsidiarity where decisions are taken by those with lived experience and (most importantly) by those who will be affected by the decisions in the short, medium and long term.

Transformative approaches (Mertens et al. 2013; Mertens 2016) refer to assumptions about power, the value of Indigenous knowledge, the need to make life chances and the lack of life chances visible and the need to develop trusting relationships

that are responsive to complex needs. The following table sums up my approach which draws on Romm (2018) who in turn draws on my research to conceptualise multiple mixed methods research that can be characterised simply as follows:

- Post-positivist approaches that try to combine methods to test hypotheses and find the truth.
- Constructivist approaches that represent narratives (see Hesse-Biber 2010) to enable people to have a say and to define their own realities through their narratives.
- Transformative approaches that strive for justice for people informed by Exanded Pragmtism etc.
- Expanded pragmatism (McIntyre-Mills et al. 2014a, b, c). The approach to multiple mixed methods to address social exclusion can be conducted across the full spectrum of approaches with varying emphasis depending on one's assumptions, values and area of concern. Neo-Marxists such as Michael Hardt make the case for the adaptability of human nature and culture.

Social Exclusion, Unemployment, Poverty and Climate Change in a Range of Developed and Developing Contexts: Sketching Out Systemic Issues

This section focuses on addressing challenges through comparing and contrasting issues spanning developed and developing nations such as the USA, Australia, Indonesia and South Africa associated with closing the gap between haves and have nots.

This is not a quote.The ability to work with many ways of seeing requires the ability to think about multiple texts and contexts and to develop a way to respect situated knowledges to the extent that the approaches do not undermine the rights of others or the environment. this must be moved to the next paragraph and deleted 'Woblem represented to be?' (Bacchi, WPRB)

'What is the problem represented to be? (Bacchi, 2009) 'What if' we were to apply the policy ideas of Wangari Maathai, Donna Mertens, Vandana Shiva, Donna Haraway, Andrea Nightingale, Sharlene Hesse-Biber or Deborah Bird Rose, Thomas Piketty and Gunther Pauli, who, for example, show leadership through reframing policy that takes into account discourses, power and the importance of acknowledging the way in which people make sense of their world?

The sketches focus on addressing challenges by comparing and contrasting issues associated with closing the gap between rich and poor across a range of developed and developing contexts.

Similarly the sense of betrayal by the majority has resulted in increased populist responses in the UK, the USA, Europe, South Africa and Indonesia where the challenges of making ends meet in an increasingly divided society have resulted in popular responses that are indicative of distrust in the elites.

Policy approaches need to address the complex context of cities and rural and regional areas and require thinking about democratic engagement in developed and developing contexts.

This morning, for example, I was teaching a student via Skype who is currently based in Nairobi, Kenya, where he is currently undertaking research on the impact of urbanisation strategies on habitat in partnership with UN Habitat, Flinders University and University of South Africa. We have been inspired by the legacy of Nobel Peace Prize winner Wangari Maathai and the implications for greening cities and protecting ground cover from the systemic ravages of deforestation detailed in *The Green Belt Movement* (2004) and *Unbowed* (2007) in which she tells the details of her struggle to introduce the Green Belt Movement to Kenya, despite opposition. Her legacy impacts the quality of life of current and future generations who are dependent on the land for their survival. Without ground cover erosion impacts agricultural industries and has a long-term impact on the climate (Pauli 2010).

I shared the story of me attending Open State, a meeting in South Australia for people who wished to share policy and business ideas or who had been invited on the basis of winning an award for research. The tent provided space for engagement, and the experience was fulfilling for those who were invited to discuss innovation and ways to strive for a carbon neutral state. As I left the event, I saw a group of Aboriginal Australians sitting in the shade of a tree on North Terrace. They were being questioned by uniformed police as they appeared to be 'lost in Adelaide', homeless and despairing alcoholics without a sense of purpose, despite being First Australians and members of a Kaurna nation whose 'country' is metropolitan Adelaide.

What are the policy silences in the structure of 'open state events'? How could the situation be addressed? The country on which we were meeting had been their place long before Australian settlement. Acknowledgement of country is an obligatory courtesy that is nearly always acknowledged at state-sponsored events, but the issue of constitutional recognition[36] remains unaddressed. Race remains a basis for discrimination within the constitution, and recognition of first nationhood within this document could perhaps be translated into everyday interactions. The latest 9th

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[36] To cite Constitutional Recognise: 'Since 2010 there has been two expert committees, The Expert Panel and the Referendum Council which have consulted and reported on constitutional recognition, and the process to the Parliament. The Expert Panel—which included Indigenous and community leaders, constitutional experts and parliamentarians—consulted extensively across the nation and reported to the Prime Minister in January 2012. The Panel recommended that Australians should vote in a referendum to:

Remove Section 25—which says the States can ban people from voting based on their race;

Remove section 51(xxvi)—which can be used to pass laws that discriminate against people based on their race;

Insert a new section 51A—to recognise Aboriginal and Torres Strait Islander peoples and to preserve the Australian Government's ability to pass laws for the benefit of Aboriginal and Torres Strait Islander peoples;

Insert a new section 116A, banning racial discrimination by government; and

Insert a new section 127A, recognising Aboriginal and Torres Strait Islander languages were this country's first tongues, while confirming that English is Australia's national language'.

'Closing the Gap Report' stresses that whilst there has been improvement most of the health and employment benchmarks have not been met. But the numbers of Year 12 students who have passed matric has been met. Systemically this could have a flow on effect.

Significantly only 3% of Australians are Aboriginal and Torres Strait Islanders, and it will take a few more decades for the numbers to return to pre colonisation.

The following ABS projection did not mention that at invasion the numbers were in the region of 700,000 or more. Only in recent years, living conditions have improved, and more people are identified as being Indigenous: 'Aboriginal and Torres Strait Islander population may exceed 900,000 by 2026 (Media Release)'.[37]

Developed Contexts Such as Australia, the USA and France and Less Developed Contexts Such as South Africa and Indonesia

In Australia we have an aging population where increased dependency on welfare will place a burden on future generations once the baby boomer generation draws down its resources.

Current data Megalogenis (2016) shows that welfare dependency has increased in Australia and that currently workers are facing increased levels of casualisation of the workforce. Thirty percent of Australians do not have permanent employment. This casual workforce is employed in multiple jobs—all of which can be of a short-term nature. The result is that people are unable to save for the deposit on a home or for their retirement. It is assumed by Generation Z that the social wage and the pension are what they can look forward to. An added concern is that without home ownership this safety net provides slim security, particularly if unexpected costs arise, such as the need to fix a vehicle or costs associated with illness. The availability of affordable social housing becomes another challenge for those without access to a vehicle, because much of the low-cost rental housing is located at a distance from places of employment in metropolitan centres.

Students will also face the need to pay more for university education as subsidies to universities decrease as a result of funding decisions made in the 2017 budget aimed at reducing Australia's debt.

Thus the challenges pose a deepening challenge in Australia that will have systemic implications for addressing wellbeing and risk if populist responses are to be prevented. According to the budget for 2017, costs for Medicare will rise albeit it is proposed that the maximum charges will not be borne by those on lower incomes. Older Australians who have had casual employment are also at risk as they

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[37] http://www.abs.gov.au/ausstats/abs@.nsf/Latestproducts/3238.0Media%20Release02001%20 to%202026?opendocument&tabname=Summary&prodno=3238.0&issue=2001%20to%20 2026&num=&view=.

are reliant on the pension. Without home ownership at retirement, they face the same challenges as the younger generation with the increased challenge of needing to pay more for accessing Medicare, the public health systems provided by the Australian government. The issues are summed up by Hillier (2017: 3), entitled 'A federal budget for business as usual':

> "Over the last five years, house prices nationally are up more than 40 percent. Younger people in particular are being priced out, as evidenced by the decline in home ownership rate: a more than 30% drop for those aged between 25 and 34 and almost 20 percent for those aged 35–44".

Hillier (2017) goes on to quote the Australian Housing and Urban Research Unit figures on Melbourne alone which show that only 2% of the five billion expenditures are allocated to public housing.

Although the populism in Australia is minimal[38] at this stage, it is growing in terms of the way in which attitudes to outsiders are expressed in the media. The 'turnback of the boats' rhetoric remains along with a silencing of all those who work in the outsourced, offshore processing centres. The Australian Labour Party's approach in the past (and today) tends to put Australian worker's rights first, which has resulted in some recent moves to stress the need to protect Australian jobs for Australians, and the rhetoric has become more strident in the wake of the election of Trump on a job for Americans and increased levels of xenophobia for undocumented immigrants to America from Mexico and those travelling to the USA from many Islamic countries.

Similarly in South Africa, xenophobic violence towards outsiders who fled as refugees from other parts of Africa, such as Zimbabwe and the DRC or Sudan, for example, needs to be held in mind when considering human security. In South Africa a rising number of people are without housing and without jobs, and they have a sense of despair which is often express as anger and xenophobia. The welfare needs across the cohorts need to be taken into account through new approaches enhancing wellbeing and lowering risks so that people have hope for the future through better pathways to opportunities. So where to from here? How can jobs be provided for people in ways that protect both people and the planet? This is a discursive paper that explores other options.

Bourdieu (1999: 2–3), for example, undertakes team ethnography of the experiences of diverse women and men living in close proximity and explores the ways in which they perceive their experiences in city environments. Instead of dismissing some of their views as 'deplorable', the team try to understand the context of their views. This approach is as important for politicians and social policy planners across the public, private and volunteer sectors if representation and accountability are to be achieved in ways that regenerate urban living where poverty is becoming more extensive and where people live not only in relative poverty which Bourdieu discusses but are living increasingly in absolute poverty that is made all the more galling, because

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[38] http://www.theguardian.com.au/story/4597814/the-four-letter-words-politicians-dont-dare-use/?cs=8.

the life chances of the elite are increasingly visible through the digital media which results in increased levels of anger at their relative disadvantage:

> "To understand what happens in places like 'projects' or 'housing developments' as well as in certain kinds of schools, places which bring together people who have nothing in common and force them to live together, either in mutual ignorance and incomprehension or else in latent or open conflict—with all the suffering this entails—it is not enough to explain each point of view separately. All of them must be brought together as they are in reality, not to relativize them in an infinite number of cross cutting images, but quite to the contrary, through simple juxtaposition, to bring out everything that results when different or antagonistic visions of the world confront each other—that is, in certain cases, the tragic consequences of making incompatible points of view confront each other, where no concession or compromise is possible because each of them is equally founded in social reason…. And we would not be faithfully representing a world that, like the world at large, has the distinction of producing innumerable representations of itself, if we did not make a place within the space of points of view for social categories that are particularly exposed to this ordinary suffering…from the particular character of their own point of view".

Mishra (2017) stresses that in the USA the anger of the excluded has resulted in the election of one of the most racist presidents:

> "Never in human history have so many diverse peoples lived together as in our time. Nor has the appeal of democracy ever been so widespread. The promise of equal rights and citizenship held out by modern society has been universally embraced, especially keenly by people long deprived of them. But, as Donald Trump, the favoured candidate of white supremacists, becomes president of the United States, the quintessential multicultural democracy, the long arc of the moral universe, as Martin Luther King called it, does not seem to be bending to justice… His election victory was engineered by Steve Bannon, the executive chairman of Breitbart News, an online site notorious for its antisemitism, racism, misogyny and xenophobia".

It is no coincidence that Trump's election follows the Obama presidency (see Mishra 2016).[39] Despite his popularity expressed in the attendance of his outgoing speech, the people who voted for Trump feel that they need 'to make America great again' and that elites have not served them well; hence the slogan 'drain the swamp', gained traction for the 62% of Americans with under 1000 in savings.[40]

Kirkham (2015)[41] stresses the need for greater savings, but in many instances people need debt, merely to make ends meet in urban and rural environments where earnings do not keep up with rising costs. Furthermore, poverty includes lack of access to a range of social wellbeing determinants that need to be factored into policies to address social and environmental justice.

South Africa is also not immune to the threat of resentments. Drawing on the World Wealth and Income site, the Business Tech Report[42] cites data shared by

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[39] https://www.theguardian.com/politics/2016/dec/08/welcome-age-anger-brexit-trump.

[40] Kirkham, E. 2015. https://www.gobankingrates.com/savings-account/62-percent-americans-under-1000-savings-survey-finds/.

[41] Kirkham, E. 2015. https://www.gobankingrates.com/savings-account/62-percent-americans-under-1000-savings-survey-finds/.

[42] https://businesstech.co.za/news/wealth/150853/the-wealth-of-these-3-sa-billionaires-is-equal-to-the-bottom-half-of-the-population/.

Piketty and Emmanuel Saez. The report stresses that: 'the top 1% in South Africa had a fiscal income share of 19.2% of the economy in 2012'.

The Business Tech Report cites their data and stresses that the rich are getting richer since the early 1990s. The same report cites the Oxfam SA report, entitled 'An economy for the 99%'. Business Tech cites Oxfam's report as follows:

> "…, the world's richest eight men own the same wealth as the poorest half of the world. Using data from the Credit Suisse Global Wealth Report 2016, Oxfam said that this inequality is more pronounced in South Africa as the richest 1% of the country's population have 42%, or \$272bn (R3.7tr), of the total wealth of \$650bn.The wealth of the richest 10% also accounted for 31% of total wealth, or \$202bn (R2.8tr), according to Oxfam. The remaining 90% of the population only account for \$175.5bn (R2.4tr) of the country's wealth. "Such inequality is the sign of a broken economy, from global to local, and lack of will from government to change the status quo," said SA Executive Director Sipho Mthathi, who is director of Oxfam".

In the same report Maathai added that:

> The recent State of the Capture Report revealed how private rich individuals influenced public policy and the allocation of public resources.

The people who remain without safe water, sanitation, electricity,[43] housing, education or employment feel that the ANC needs to do more to meet their needs. Many protested about their inability to make ends meet, and the protest was quashed using police force that resulted in workers being shot.

Ramaphosa has been linked with the Marikana massacre of mine workers who protested about the garnishing of their wages by employers on behalf of debt collectors. The administration of the debt collectors was seldom questioned, and the debts were paid out of wages that were needed to support workers in the urban areas and their extended families in rural areas. Zilla (2016)[44] stresses that class-based political responses to the problems in South Africa are inadequate. A more practical and systemic approach is vital. People who are excluded and traumatised as a result of their identity will see themselves in terms of being a woman, a refugee child and an excluded Black student from a rural background.

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[43] http://www.htxt.co.za/2014/09/03/a-third-of-south-african-households-still-have-no-electricity/ Shezi, L 2014 cites Stats SA. http://www.statssa.gov.za/: 'The number of households with access to electricity grew over the course of 2013, according to the latest figures published in the Non-financial census of municipalities by Stats SA. http://www.statssa.gov.za/. According to the report, which looked at 278 South African municipalities, the number of homes with power increased by 2.3% from 9.7 million households in 2012 to ten million in 2013.In total, there are around 15 m households in the country. Which means almost a third are still without a regular power source from the grid'.

[44] As the child of holocaust survivors, she understands that culture and race matter, whether we like it or not. Zilla (past leader of the Democratic) is married to a sociologist Johan Maree who has stressed the importance of class in labour force studies and in his support for unionists during apartheid. He suffered exclusion from his Afrikaner community when he supported an anti-apartheid campaign against SA Rugby team. So he emphasised class analysis whilst being aware that culture plays a pivotal role in everyday life in South Africa.

Mishra (2016) in his essay on the 'Age of Anger' stresses that in South Africa people have 'lost faith in the state' because the elites in the public and private sectors are not accountable. The price of inequality—national and global—has escalated. For example, in South Africa where access to education has driven, the '#Fees must fall' and '#Fees will fall campaign' and the need to decolonise the curriculum are expressions of the anger felt by those who consider that apartheid has made little difference in their lives.

The current state of the nation can be summed up by the following statistics. A quarter of the population is unemployed if the discouraged jobseekers are included. Thus the South African Institute of Race Relations figure of 34.9% underestimates the full extent of unemployment. And according to Van Wyk (2017):

> The unemployment figures put South Africa on a par with countries such as Greece, Senegal, DRC and Lesotho. And unemployment is four or five times greater than in Brics partners Brazil (7.6%), China (4.1%), Russia (5.2%), and India (4.9%).

Van Wyk adds furthermore that 'half of the unemployed in South Africa are aged 15–24' and '85.8% of the unemployed are black'. 'More than half of the population' are 'without piped, clean water', and 'more than a third don't have access to flush or chemical toilets' (Van Wyk 2017 cites SAIRR report) and goes on to stress that '20% do not live in a formal home'. Formal and informal housing need more clarification as the rural housing using sustainable materials such as clay and thatch are more appropriate in many ways and could be upgraded with appropriate technology that supports the environment. As detailed below the blue economy and biomimicry agenda could be explored to take into account the employment and training needs of the population.

Representation, accountability and regeneration remain the greatest challenges for democracy and governance. Rorty stressed that the Left needs to focus not merely on identity politics (which remain important) but that they also need to create jobs. Current social and economic agendas need to focus on ways to support the current and future generations through focusing on living systems and ways to regenerate life in rural, regional and urban areas.

Increased urbanisation and education based on the 'misdirected system' (Ackoff and Pourdehnand 2001) of neo-liberal economies simply focus on doing the wrong thing right, to cite. It is estimated that 65% of the South African population live in cities,[45] and this poses a threat for food security (Battersby and Crush 2014; Crush and Fayne 2011; Frayne et al. 2014).

The future for South Africa lies in developing learning organisations and learning communities where people feel that they have a right to a voice and where

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[45] Urbanisation poses a systemic threat to quality of life and has implications for policy. Food deserts are the likely scenario if more emphasis is not placed on balance, greening cities and supporting small farmers. It has been wrongly assumed that growth in the economy will sustain a growing population. During my sabbatical I attended workshops or held conversations with colleagues at Living Hope, Embrace Dignity and Africa Tikkun in Cape Town. The concerns they raised were for food security and how it relates to educational and employment opportunities for all especially young people.

they do not only participate in vertical democracy through elections that vote in elites who then lose connections with the people they are supposed to represent. So the future lies in participatory democracy and more direct interventions for regeneration.[46]

The problem in South Africa is that debt is being used to bolster education. The 2008 financial crisis has been blamed by Mogajane based in the SA Treasury. The spending cannot be maintained as current levels of SA debt are at 48% of the GDP (Mogajane, cited by Van Wyk 2017). But the issue is exacerbated by national debt and the need to draw money from other public spending needed at the provincial level for housing and infrastructure. It is also exacerbated by the debt which each student who has a loan from the National Financial Aid Scheme will have to repay. The likelihood of defaulting students is high, and this will lead to the end of the current system of education.

Tertiary education is a focus of attention, but primary and secondary schools are also in crisis as a result of the number of students who cannot be accommodated by existing schools.

Internationally higher education needs to be expanded beyond university education to address the Vocational and Educational Training needs of people. Instead of channeling all students into universities, more training and apprenticeships need to be created spanning rural, regional and urban areas. Learning on the job would enable students to earn a living. Instead of trying to make a failing economy work, nation states need to:

- Draw on the inspiration of the 'blue economy' approach of Gunter Pauli (2010)[47] and find ways to find sources of natural abundance in the natural and urban environment.
- Reaffirm their interconnectedness within overlapping regions.

In South Africa the resurgence of race-based politics featured in the ANC discussions on nominations for future leadership of the ANC. The ANC youth[48] league stresses the need for radical transformation in the areas of education, employment

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[46] The first-time regeneration that has been used in the SA context is perhaps by Pixley Ka Seme who provided some of the founding ideas for the organisation that was the precursor to the ANC, namely, the South African National Congress http://www.sahistory.org.za/people/pixley-ka-isaka-seme.

[47] https://m.youtube.com/watch?v=flMvwi6jR8o.

[48] "UNICEF's Generation 2030 Africa" reports that next year, out of South Africa's projected population of 53 million people, 18 million of those would be under the age of 18.

This is reported in the following article on 24.com/Web/News24/: 'Over one third of South Africa's population is expected to be under the age of 18' in 2015, according to a United Nations Children's Fund (UNICEF) report released on Tuesday. 'South Africa was also expected to have 65% of its population living in urban areas next year, the ninth highest level in Africa'. According to the report, in 2050 around 41% of all births world-wide would take place in Africa, whilst in the same year 25 people out of every 100 would be African. This was against the expected figures in 2015, where Africans would make up 16 people out of every 100 around the world. In 2015, 40% of Africa's population was expected to be living in cities, versus over 50% in 2050 href='http://pubads.g.doubleclick.net/gampad/jump.

creation and access to land. The decolonisation of the education curriculum has become the cornerstone for transformation in South Africa based on a renewed understanding of the importance of Biko's black consciousness political agenda and an increasing usage of the discourse of race, rather than the discourse of class which was favoured previously by Mandela. This is explained by Sociology Professor Mangcu at the University of Cape Town as a recognition of the contribution that can and must be made by black scholars. He cites Biko's notion of a 'joint culture' for South Africa (see Mangcu 2016: 57 who cites Biko 2004) and stresses:

> "The shared 'text of Blackness' could be the basis of a conversation between Black and White academics about what a new sociology might look like. His article is about decolonizing the subject of sociology but his discussion extends to the content of curricula, the nature of democracy and the governance of educational institutions: Participation is the cardinal principle of democracy—not only because of its intrinsic value, but also because it increases the political efficacy of citizens by giving them direct training in the policies and tools of governance. Almost 200 years ago, John Stuart Mill suggested that this kind of democratic training is best obtainable at the local level, where citizens can make decisions about issues they can immediately relate to, and then generalize that knowledge to the broader, national political system". (Mangcu 2016: 31)

According to Crenshaw (1991: 299):

> "Recognizing that identity politics takes place at the site where categories intersect thus seems more fruitful than challenging the possibility of talking about categories at all. Through an awareness of intersectionality, we can better acknowledge and ground the differences among us and negotiate the means by which these differences will find expression in constructing group politics".

Thus the concerns raised by Mangcu in South Africa about the focus on class in post-apartheid South Africa could be addressed through more intersectional discourses that take into account the many different life chances experienced by people as a result of socio-demographics (race, culture including religion and language, gender, age, level of ability), economic aspects (class) and contextual political aspects (citizenship). If the roll of the dice determines that one is born in a context that favours or discriminates on the basis of one or many of these variables, then the life chances of individuals will be very different from the life chances of one who is politically privileged in this context. This is why national and international law to protect the capabilities of all are needed to uphold human rights.

What is needed in South Africa is a greater emphasis on core principles and engagement with the people in discursive democracy, as suggested by Mangcu (op. cit.), but it is also a realisation that unemployment has not been redressed in South Africa by means of a class-based analysis that denies the relevance of other factors that also play a role. Gender, level of ability, language, class and culture as well as race played a role in terms of job eligibility in South Africa like elsewhere.

This engagement process needs to enable participation on a number of issues pertaining to identity and opportunity. Clearly being unemployed is a vital aspect of people's lives, but material living conditions are not the only determination. Arguably culture is relevant for women, and it plays out differently for women who are white and middle class or black and working class (Hooks 1989). The ability to

engage in a respectful dialogue can help to develop reconciliation based on telling one's story, listening deeply and acknowledging the experiences of the other and the consequences of our own thoughts and actions on other people's lives. This process was guided by Bishop Desmond Tutu in South Africa within a framework of trying to build a new South Africa. But laws that require respect, such as Racial Discrimination Acts, also have a place and need to be maintained even when so-called political correctness is called into question. It is evident that when people perceive that there is licence to act out their xenophobia, then acts of violence escalate from verbal abuse, subtle to legalised exclusion and discrimination, control of mobility, disfiguring and confiscation of property, physical violence and 'ethnic cleansing'.

In South Africa the outcry against apartheid control of labour movement resulted in sanctions and eventual transformation. In the USA currently religious affiliation and national identity can be used to determine mobility into the USA. The mobility of people has always been less possible in global economies than the movement of wealth as evidenced by the reports of Panama Papers through WikiLeaks (Chakraboritty 2016).[49]

The invitation to Thomas Piketty to give the 13th Nelson Mandela Address in 2015 was appropriate as Piketty has stressed the need to narrow the gap between the rich minority and poor majority through greater levels of transparency and less opportunity for corruption. Piketty has studied the increasing gap in America and drew on his analysis and the lack of transparency in his lecture. As Piketty stressed in the Mandela lecture (2015), the data on money trails and wealth could be managed to ensure fairness and reciprocity. In some instances this would require some transfers to restore the balance. But although transparency is vital for public trust, a further step is required, namely, the need to protect the environment through everyday decisions. This was stressed previously by Wangari Maathai in the third Nelson Mandela Lecture.

All public education on global citizenship ought to support understanding the notion of stewardship for current and future generations of life. A systemic approach is needed to address the IPCC formula that underpins the increased consumption in an increasingly urban way of life:

$$E(\text{Emissions}) = \text{Population} \times \text{Consumption per person}$$
$$\times \text{Energy Efficiency} \times \text{Energy Emissions}.$$

This suggests that the privileged lives of some could lead to 'existential risk' for all forms of life on the planet (Bostrom 2011). This is evident in the different ways in which human services are provided and the way in which, for example, water and energy are consumed in Cape Town.

- What are the links between use of scarce of resources, sustainability and inequality?
- Can living more simply promote sustainability and minimise inequality?

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[49] Chakraboritty, A. 'Hidden money corrupts', *The Guardian Weekly*, 15.04.16.

- What are the views on consumption-related ethical decision-making in South Africa?

World Development Report (2017: 30), for example, stresses that in South Africa there is resistance by some elites to moving towards renewable energy as it is perceived to impact their business interests in coal, for example. Focusing on the consumption of food energy and water, it seeks to understand how participatory democracy and governance may shape personal practice in regard to sustainable living. This participatory action research provides interdisciplinary theory and models on consumption across the public, private and business sectors on 'caring for country'.

The Western Cape is suffering one of the worst droughts in the past decade and has moved to level 3 water restrictions as the winter rains were particularly low. The dams are at 47% at this stage and no rains are expected until June/July 2017. This is the peak tourism season which adds to the water usage.[50] The drought has been accompanied by fires. An average of 99 fires per day raged in the Western Cape during the first half of January according to a Cape Argus reporter (Latief 2016).[51] In a context of increasing anger concerning the lack of equity in social services, some have suggested arson, and others suggest they could be the result of a combination of factors such as strong, dry winds that ignite unattended paraffin stoves in informal settlements.

Transformation Through Multiple Perspectives in Multiple Spaces Spanning Rural, Regional and Urban Areas

In South Africa, for example, instead of focusing on the rising school fees in traditional schools (ranging from over 200 thousand rand a year for boarding)[52] and the lack of places in the Tshwane region in particular,[53] an effort needs to be made to reframe education for a new economy that fosters the wellbeing of all within the wider region. The decolonisation agenda could be fostered to include action learning in a vocational curriculum that supports the blue economy and encourages students

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[50] Cape Town's water usage up, despite calls to cut down http://www.news24.com/SouthAfrica/News/cape-towns-water-usage-up-despite-calls-to-cut-down-2017011,2017-01-10 20: 18.James de Villiers, News24: "Dam levels are currently at 44.3%, having decreased by 5% since December 21.City of Cape Town spokesperson Priya Reddy told News24 in December that dam levels may become dangerously low. According to our projections, dam levels may 'bottom out' at a very low 20%. This leaves a very low margin of safety, as it is difficult to abstract the last 10% of a dam's volume".

[51] http://www.iol.co.za/news/south-africa/western-cape/99-cape-fires-a-day-1970179: '*Cape Town - The City of Cape Town's Fire and Rescue Service has responded to 495 fire calls since Thursday …*'.

[52] https://businesstech.co.za/news/finance/149049/these-are-the-20-most-expensive-schools-in-south-africa-in-2017/.

[53] http://www.news24.com/SouthAfrica/News/school-shortage-is-departments-fault-report-20170114. In the Tshwane region alone, more than 35,000 students still needed to find placements.

to learn about ways to regenerate the environment by making opportunities specifically for marginalised young people through a gender mainstreaming approach that fosters opportunities for all genders in supportive learning environments that respect and protect diversity. In Indonesia policy is needed to implement vocational educational pathways to employment within regional areas to protect agriculture and habitat.

Fostering Indigenous Capabilities for a Transformative Economy by Adapting the Blue Economy and Biomimicry Principles

'What if' the curriculum for vocational learning were to apply the policy ideas of Wangari Maathai, Thomas Piketty, Vandana Shiva or Deborah Bird Rose who show leadership through reframing policy?

In line with the Paris Declaration (1997), it needs to be framed together with coresearchers with local lived experience. The battle will be to protect living systems by human beings who can be co-opted by states, corporations or populism. Unfortunately co-optation tends to prevail. Both voluntary and postnational structuralist interventions are needed to protect people and the planet. Voluntarism involves everyday choices about how we live our lives and what we decide to consume. Structuralism provides the legal and governance framework to ensure representation and accountability. Thus the Paris Agenda, UN Sustainable Development Goals, the Paris Climate Change Agenda and the principle of subsidiarity (taking decisions at the lowest level possible so that local people have a say) are taken into account in this approach to governance. The approach to governance draws on Foucault and Gordon (1980), Colebatch (2005) and Mertens et al. (2013) in that it extends beyond the state to include the wide range of groups that are affected by policymaking. The idea is that those who are affected by a policy decision should be part of the policymaking process. Thus the approach to representation is inclusive and based on testing out ideas. The policy silences and the silenced people are placed at the centre of this approach. Developing the cascade economy requires addressing policy to enhance representation, accountability and regeneration through reframing governance. Instead of valuing profit, we need to think quite differently in terms of so-called wellbeing stocks (Stiglitz et al. 2010). Gunter Pauli (2010: 230–235) explains that natural systems do not work in linear ways. They are cyclical and abhor any forms of waste.

Policy needs to:

- **Address gendered**, cross-cultural perspectives on what it means or could mean to be an ecological citizen who respects multiple species and proposes aspirational policies grounded in the necessity to protect current and future generations of life through the fair distribution or redistribution of resources.
- **Enhance representation**, accountability and the regeneration of social, economic and environmental resources.

- **Address the Australian Research Council's research priority** 'resilient urban, rural and regional infrastructure' and 'develop options for responding and adapting to the impacts of environmental change'.
- **Contribute to expanding knowledge** through studies of human society by exploring culturally diverse ways of caring and stewardship.
- **Be inspired by original thinkers** such as Professor Wangari Maathai (2004) who stressed in her third Mandela Lecture:

> There are simple actions we can take. Start by planting ten trees we each need to absorb the carbon dioxide we exhale. Practice the 3R campaign (reduce, re-use, repair and re-use, which is mottainai in Japanese), get involved in local initiatives and volunteer your time for services in your community. Governments should prioritize technical schools and give people knowledge and skills for self-employment.

Deborah Bird Rose stresses the importance of appreciating on Indigenous understandings of nature.[54] This approach could help us to understand what Gunter Pauli (2010) mean by the following statement:

> …While we are obsessed with monetarization (to our own benefit) natural systems generate multiple revenue flows best measured in protein, drinking water, energy resources and defense systems. Nature produces benefit through the calculation of integrated benefit flow…. (Pauli 2010: 235–6)

Pauli (2010: 236) then goes on to explain the costs of the linear economic model cost inputs, through puts and outputs and externalised costs to society and nature, and it does not disclose the opportunity costs to future generations of life.[55]

'The Blue Economy' approach of Gunter Pauli (2010) outlines more than 100 ways to create opportunities through environmental thinking that does not privilege the environment at the expense of people; instead his approach is to find ways to enable the unemployed to benefit through working on environmental challenges. His motto is: 'There is no unemployment in eco-systems' (Gunter Pauli 2010, 2016).[56]

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[54] See https://www.youtube.com/watch?v=qp3Ktlfy0Hw&app=desktop; https://www.youtube.com/watch?v=suSbvoAw0g4.

What does Deborah Bird Rose mean by the colonisation of the land and the mind?

- Caring for country? Gift of country?
- What does she mean by *multispecies ethnography*?
- What does she mean by the human/nature divide?
- What is the implication for ethics and public administration?
- What does she mean by species extinction?Please watch and then think about responses to the questions

- https://m.youtube.com/watch=suSbvoAw0g4.
- http://umaincertaantropologia.org/2013/08/17/the-emergence-of-multispecies-ethnography-cultural-anthropology/.
- What are the implications for Human/animal habitat in South Africa?

[55] See https://www.youtube.com/watch?v=sLh-U99avso, https://www.youtube.com/watch?v=sLh-U99avso.

[56] https://www.speakersassociates.com/speaker/gunter-pauli Accessed 20/12/2016. He stresses the need to provide integrated opportunities through design that taps into the abundant talent and environmental opportunities that can be found and to ensure that the designs protect both people and

In many ways the visionary work has blind spots associated with gender mainstreaming within the political contexts in which he operates. In what ways are the examples of coffee production that also supports protein from waste appropriate in Zimbabwe? In what ways is the construction of a building based on termite construction inspirational? What are the implications of developing opportunities by and with people at the local level without addressing the issues of state capture? What are the issues associated with overcoming boycotts? What is the problem associated with being apolitical? How can the regenerative approach maintain agency whilst remaining critical?

For the purposes of this chapter, I focus on the 'zero waste approach' which is based on a systemic approach to recognising sources of abundance through reusing, repurposing and recycling, in order to regenerate living systems. Our current structures and approaches are inadequate. Exclusive politics will prevail for as long as people think in terms of zero-sum paradigms, rather than comprehending that they stand or fall together and that we are co-determined by the environment of which we are a part. In the environment there is no waste, because what is waste for one is food for another. But let me caution that in nature this is a way to foster diversity, because it provides multiple niches and habitats. But in the social context, it is necessary to take the analogy of living carefully in ways that reuse and recycle so as to support creating something worthwhile out of waste.

Mishra (2016) in an article about his essay on the 'Age of Anger' stresses:

> "The problem for these critics of Enlightenment rationalism, as Robert Musil defined it, was not that we 'have too much intellect and too little soul', but that we have 'too little intellect in matters of the soul'. We suffer even more from this problem today as we struggle to make sense of the outbreaks of political irrationalism. Committed to seeing the individual self as a rational actor, we fail to see that it is a deeply unstable entity, constantly shaped and reshaped in its interplay with shifting social and cultural conditions. In our own time, amid what Hannah Arendt described as a 'tremendous increase in mutual hatred and a somewhat universal irritability of everybody against everybody else', this fragile self has become particularly vulnerable to ressentiment".

In Indonesia the United Nations Protection of rights working group has stressed that the rights of the disabled have received attention, but the Wahid Institute stresses that abuses to religious freedoms could undermine the Pancasila notion of religious diversity and faith (Jong 2016).[57]

Thus the challenges faced by the most marginalised in cities are likely to grow as urban development strives to meet the needs of the urban elites. At first the citizens in Jakarta did not resist the recent removals.[58]

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habitat. This is a systemic approach that could ensure that people come up with solutions that do not create *binary oppositions* between *people* and the *environment.* It is unnecessary to argue that for people to flourish the environment must suffer.

The policy proposal is to develop more educational institutions that focus on teaching design skills from primary to secondary and tertiary level based on the blue economy and biomimicry in ways that draw on the lived experience of the learners.

[57] Jong, H. N. (2016). UN to grill RI on rising rights abuses *Jakarta Post* Thursday 29 September

[58] Some said they would challenge the evictions in the courts. Most have found alternative accom-

The social fabric was important for their survival. I discussed this point with colleagues and was assured that the removal was essential for the protection from flooding. Indra Budiari (2016)[59] comments:

> NGO Kota Kita has stressed that Jakarta is becoming a divided city and that the removals from Bukit Duri was indicative of this trend towards top down decision making.

I returned to Indonesia after 3 weeks of research in August and early September to attend a conference in Solo and an Alumni Conference in Jogjakarta. At that stage there was rioting in Jakarta.[60] The violence in Jakarta during November against Ahok did not surprise me, because Ahok moved people as a result of recent floods. The local people resented his removals and the way they were being used to foster his political agenda, namely, to clear out the slums as a precursor to his political election campaign. Politically, when the time was right, the marginalised found a way to accuse him of being 'anti Muslim and blasphemous'. This gave the necessary focus for venting their hostility towards his decisions and also an opportunity to try to discredit any attempt to use his position as mayor as a stepping stone to higher office (the presidency) in the next round of elections.

Sudarmo's research (2008) on informal traders in Solo detailed the challenges of people living on entrepreneurial earnings who faced evictions by a bureaucracy that paradoxically wanted to beautify the city but were at the same time reliant on the levies from the traders to subsidise their salaries. The plan of moving people from the centre to the periphery was resisted in Solo because unless the traders remained near the centre they missed passing trade. Menders of vehicles were told that their spare parts and machinery were both an eyesore and caused noise. Those engaged in activities that were regarded as 'morally reprehensible' were also advised that they should move.

Enhancing the Capability to Balance Individualism and Collectivism

This can be achieved by enhancing human development and the capability to be actively engaged in shaping the future. The difference between the natural system and the human capability system is that people do have choices. The capability to be

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modation and will strive to maintain the bonds they developed in the urban villages in Jakarta.

[59] http://www.thejakartapost.com/news/2016/10/04/public-participation-needed-create-livable-city-all.html Accessed 29 October.

[60] The reason for the rioting was cited as being a comment made by the mayor who is a Chinese Christian: http://www.japantimes.co.jp/news/2016/11/05/asia-pacific/political-meddling-instigated-deadly-jakarta-riots-indonesian-president-says/#article_history … President Joko 'Jokowi' Widodo said the riot showed 'political actors have taken advantage of the situation.' He did not identify any individual as responsible, but earlier in the week former President Susilo Bambang Yudhoyono went on national television to say he supported plans for the massive protest. http://www.thejakartapost.com/news/2016/11/03/more-muslim-groups-to-join-anti-ahok-rally.html.

destroyers of sociocultural, political, economic and environmental systems or creators is based on will and on values.

This remains an area that is vitally important and it cannot be glossed over. Even though natural resources are limited, human beings have the capability to envisage a different future, but dreams need to be practical: people need to reuse and regenerate resources so as to eliminate waste. Pauli stresses that he does not see carbon as a problem as it can be used as a resource. Instead our wasteful, linear thinking is the problem. Economic performance is determined by the capabilities to maintain the cyclical ecological system or cascade economy. In a cascade economy, production and consumption are efficient and effective in order to minimise waste of people and resources.

Economic performance is understood as a flow that assembles ideas like the polymers assembled by the spider who weaves its web by reassembling the parts to form and re-form the whole.

The reuse and reassemblage of resources are encouraged to enhance the protection of living systems and wellbeing stocks rather than emphasising production. The Planetary Passport (McIntyre-Mills 2017) is a means to maintain and regenerate wellbeing stocks. Production and consumption are indicative of GNP, but the focus is on maintaining human and natural resources.

Boulding (1956) and Pauli (2010) distinguish between renewables and non-renewables. Stiglitz et al. (2010) stress that economic performance is less important than protecting the fabric of life on which we depend. But Pauli goes further than Stiglitz et al. to suggest that a paradigm shift is required to appreciate how economies can be seen as flows that abhor any form of waste. Thus wasted opportunities are important. Unemployment and social and environmental injustice are not externalities in this approach; they pose challenges for policymakers and academics who need to decide if they are going to be part of the problem or part of the solution. Praxis is not a spectator sport, and it needs to avoid being blind to the differing life chances that flow from being male, female, educated, uneducated, black, white, a citizen and non-citizen and able to communicate or unable to communicate with powerful decision-makers.

'Flows' refer to the way in which human choices shape the landscape of our daily lives and need to be understood as part of the situated knowledges that are valued or discarded. What we choose to value is translated into being through our thinking and practice. The scope of the new architecture for democracy and governance is to make a plea for a planetary passport to enable us to rethink boundaries and relationships at multiple levels of democracy and governance through applying multiple forms of intervention to protect living systems. The capabilities approach on which this approach rests is non-anthropocentric, and it provides a basis for addressing better governance to prevent discrimination against the majority of this generation and the next. Alternative ways of framing human-nature relationships in legal, ethical and spiritual terms are illustrated by the Bolivian and Ecuadorean constitutions in line with their belief in Mother Earth or Pachamama. Despite the fact that the rhetoric is undermined by the political reality of 'business as usual', it provides a first step.

The next step is providing the necessary 'planetary passport' that aims to inspire loyalty to the planet. This is achieved through the following steps detailed in Planetary

Passport to think through the implications of making every day social, economic and environmental decisions that support business as usual and making small adjustments and decisions to support the protection of wellbeing stocks for future generations.

This Approach Could Enable Greater Transparency to Ensure Monitoring from Above and Below

The process acts as a monitoring system to protect living systems through enabling people to address the UN Sustainable Development Goals at the local government level and recognising their contribution to protecting wellbeing stocks. This form of monitoring could enhance representation, accountability and sustainability and be translated into points through a resilience and stewardship score card (https:// archive.org/download/pathway_DEMO_1) pathways to protect wellbeing and wellbeing stocks:

Scenarios along a continuum to address climate change and wellbeing[a]	
(a) Business as usual, (b) doing too little too late, (c) sustainable future and wellbeing	(a) Not coping,[b] (b) just keeping it together, (c) wellbeing

[a]For the purpose of scoping out this area of concern, please draw on narrative and auto-ethnography (own story) to address closing the gap data for South Australia and more specifically the Southern Region. Note for research facilitator, please take the independent variables of unemployment by access to housing and other indicators of social wellbeing across the age cohorts as a starting point. Please use the following as prompts:

What does the participant have in their life? (material, non-material and conceptual aspects) pertaining to social, economic and environmental factors (for all the questions please)
What does the participant need?
What is the participant able to add to their life?
What does the participant need to discard from their life (material, non-material or conceptual aspects)?
What barriers does he participant face (social, economic, environmental)?
What are the turning points for the better? Explain in detail.
What are the turning points for the worse? And how are they addressed?

[b]This reflects the underlying science, but from the point of view of the some/perceptions, they probably don't perceive themselves as not coping. The software is aimed at enabling participants to make the connections

Participants were asked to think about health, housing, employment, education and social inclusion within their communities. Our conversational structure to address complex needs is to consider the following:

What do I/we have?
What do I/we need?
What do I/we want to add to my life—the resources and networks?
What am I prepared to discard from my life—the resources and networks?
What are the turning points for the better and worse?
What are the barriers?

Praxis aims to:

- **Build** the capacity of people undertaking policy research or implementing governance to think about the consequences of their choices for self, other and the environment.
- **Co-create** policy and governance literature based on testing the principle of subsidiarity and Ashby's rule of requisite variety and explore the policy implications for complex decision-making.
- **Extend social** theory through reframing and reconsidering boundaries (conceptual and spatial) in relation to social and environmental justice.
- **Contribute** to systemic ethics by (a) expanding pragmatism through addressing 'what if' heuristics and 'if-then scenarios' to enable individual self-reflection, group considerations and pilots of participatory democracy and governance. (b) Considering (i) identity and relationships, (ii) boundaries and flows and (iii) policy decisions based on drawing the ethical line through questioning taken-for-granted ideas about the state, market and society together with those who are to be affected by the decisions that respect our relationships with others and the environment of which we are part.

The participatory design process and the use of metaphors and scenarios that were used in the local government research in South Australia were inspired and adapted from the Mont Fleur Scenario Approach (Kahane 1992) used to inspire policy design for transformation in South Africa. The scenarios included (a) policy based on denial or 'the ostrich approach', (b) policy based on doing 'too little too late' or the 'lame duck approach' or (c) policy based on making small adjustments for the long haul or the 'flamingo approach'.

Participants are asked to consider the implications of policies along a continuum of denial, too little too late or making small ongoing adjustments towards using resources sustainably and living differently. In the Mont Fleur engagement process, policy that pushes for more immediate and extreme changes is symbolised as the flight of Icarus too close to the sun. When addressing the scenario approach with Local Government in Adelaide South Australia, it was adapted to enable people to think about 'business as usual' and not making any changes, making 'small adjustments' and living in ways that support wellbeing. The idea was to establish to what extent the engagement in thinking about thinking made any difference. The approach was piloted with a middle- and higher-income community with a heavy carbon footprint to assess the extent to which thinking about lifestyle and climate change made a difference to their choices. This symbolism was discussed in focus groups with participants and the need to move from 'Business as Usual' to a new way of doing things.

By addressing so-called wellbeing stocks, a concept developed by Stiglitz et al. (2010: 15) refers to a multidimensional measure of wellbeing spanning:

1. Material living standards (income, consumption and wealth), 2. Health, 3. Education, 4. Personal activities including work, 5. Political voice and governance, 6. Social connections and relationships, 7. Environment (present and future conditions), 8. Insecurity, of an economy as well as a physical nature.

The aim of the concept is to enable people to re-evaluate economics and to become more aware of the way in which we neglect social and environmental aspects of life. The pursuit of profit at the expense of people and the environment is a central problem for democracy and governance.

Marin-Guzman (2017) has stressed that the ability to conceptualise and design ways to respond to challenges is the key contribution that human beings make to the world of work. Technology responds to design. 'We are the boundaries', as Donna Haraway (1992) reminds us.

> The ABS projection did not mention that at invasion the numbers were in the region of 700,000 or more. Only in recent years living conditions have improved and more people are identifying as being Indigenous.

Wellbeing is a carefully assembled raft of concepts that form the basis for codeveloped user-centric, multidimensional measure of wellbeing. It is based on the perceived ideas that are co-created together will all the stakeholders in a project.

The might right notion is undermined through growing the assemblages of ideas, drawing on Deleuze and Guattari's notion of meaning making and the importance of sharing the process with all those who are to be affected by a decision.

The concepts of stewardship and resilience are important notions through which to explore this nexus between wellbeing and environmental sustainability. Stewardship is based on awareness that the land and biologically diverse ecosystems are a cultural heritage (Flannery 2012) on which the wellbeing of current and future generations depends. Resilience is defined as the adaptive capacity of the physical environment, of an individual or of a group. It concerns factors such as the capacity of members of a community to act together and to be able to modify or even transform existing ways of life (Rose 2005; Hulme 2009; Shiva 2012a, b). This research explores whether collaborative approaches drawing on diverse ways of knowing (Cruz et al. 2009) and user-centred governance of resources (McIntyre-Mills 2003, 2006, 2008, 2012; Poger et al. 2012) could support regional governance (Wear 2012) to support effective environmental management based on the UN Sustainable Development Goals. The research thus develops the 'Being, doing, having and interacting' index (Max Neef 1991; McIntyre-Mills and Wirawan 2017) as the Stewardship and Resilience Index (SRI) to address capabilities to meet sustainable and regenerative living at a personal and community level. The engagement process will address ways that participants could strive to meet some of the goals at the individual, personal and interpersonal level. The research breaks new ground on understanding psychosocial, cultural relationships and power dynamics across diverse groups as they relate to wellbeing multispecies, habitat and environmental stewardship. The conversations will continue and extend to others via a face-to-face and digital community of practice to meet the different engagement needs of residents (Wenger et al. 2009). The engagement process aims to enable people to think about the way they live in terms of what they have, what they need and what they are prepared to add or discard, the consequences of their decisions which are turning points for the better or worse in terms of perceived wellbeing, sustainability and resilience.

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Chapter 13
Transformation: A Change in Perspective

Keith Miller

Abstract Indigenous people seek a transformational approach to change. They seek reconciliation and a new beginning. This is seen in their relationships with their immediate environment and the consequent attempts to engender sustainability. In Taiwan, colonialism meant that Indigenous communities were displaced and lost many of their languages and defining aspects of their culture. In the Northern Territory, Australian Aboriginal people lived in tight-knit communities, many of which were decimated by the ongoing influence of loss of connection to land and the introduced issues of gambling, illicit drugs, alcohol, unemployment and the consequent family violence. Each of these negative issues came about as a result of the non-Indigenous invasion and colonisation. In Northern Luzon, Philippines, Indigenous communities were similarly decimated by the disempowerment imposed by waves of immigration and colonisation. These Indigenous communities have been stripped of power and identity and often pushed into more remote regions. More recently, Indigenous communities in Taiwan, the Northern Territory and in Northern Luzon have begun to reclaim some control over their lives and destinies. There is a recognition of the need to adapt to life within a largely individualistic and imposed culture. But Indigenous communities are seeking to retain power and control by undergoing these adaptations yet retaining meaningful and trusting relationships within the environment in which they live. Rather than seeking to exploit resources, they choose to live sustainably in an eco-friendly manner. This means retaining a sustainable lifestyle and engaging in eco-tourism. Using examples from Indigenous communities in eastern Taiwan, northern Australia and Northern Luzon, this transformative approach provides a changed perspective with the opportunity for new life chances.

Keywords Values · Relationships · Transformation

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Introduction

Indigenous people with whom I have come in contact seek a transformational approach to change. They recognise the historical wrongs which have been perpetrated upon their people, but they do not wish for vengeance nor to impose guilt on the descendants of those who perpetrated violence against them. Rather, they seek reconciliation and a new beginning. To apply the concept of Lederach, they wish, 'to pursue justice in ways that respect people and, at the same time, to achieve restoration of relationships based on recognizing and amending injustices' (Lederach 1995: 20).

Indigenous knowledge is a contested space. In the minds of non-Indigenous people, the concept of being Indigenous has been (negatively) romanticised with stereotyped images of exclusivity, marginality and cultural difference (Paradies 2006). *Indigenous* has become a term for a 'geocultural category' (Merlan 2009: 303), and people who claim Indigeneity choose to maintain a connection to land, even if it has been 'stolen' from them through colonisation. Martinez Cobo (1986) provides one definition of Indigenous communities, peoples and nations as:

> those which have a historical continuity with pre-invasion and precolonial societies that developed on their territories, consider themselves as distinct from other sectors of societies now prevailing in those territories…and are determined to preserve and transmit to future generations their ancestral territories, and their ethnic identity, as the basis of their continued existence as peoples. (p. 5)

Indigenous people are connected to land and the land is connected to them. Indigenous people groups across the world have often been through the violent process of being 'ripped' from their land and this connection being severed. Indeed, the United Nations Working Group for Indigenous Peoples (UN WGIP) provided an amended definition of Indigeneity in 1983 to include:

> Indigenous populations are composed of the existing descendants of the peoples who inherited the present territory of a country wholly or partially at the time when persons of a different culture or ethnic origin arrived there from other parts of the world, overcame them, by conquest, settlement or other means, reduced them to a non-dominant or colonial condition…. (Indigeneity 2017)

Indigenous peoples around the world have known and continue to experience oppression. Once, Indigenous peoples lived in harmony with their surroundings. They sustained their environment and were sustained by it. The invasion and settlement of non-Indigenous peoples into their lands broke this continuity. The incoming groups possessed the land, raped and pillaged it for their own ends and refused to live in harmony as the Indigenous peoples before them.

Yet, more recently, there has begun a transformative and gradual process of regaining recognition and the reinstatement of power to some of these people groups. This includes the fact that 'Indigenous people now want research…to contribute to the self-determination and liberation struggles as defined and controlled by their communities' (Rigney 1997: 109). A change in perspective has gradually evolved following several decades of challenging for the right of self-identity and seeking self-determination.

Transformation and a change in perspective have now come about amongst Indigenous people groups but more significantly amongst the non-Indigenous colonisers. Non-Indigenous colonisers largely brought an individualist perspective. Yet recognition is beginning to occur amongst these non-Indigenous colonisers of the collectivist perspective amongst Indigenous people groups. This recognition has begun to transform non-Indigenous people to the value of collectivism and the positive role it can have within their own communities.

In this chapter, I want to consider how Indigenous people groups in Taiwan, Australia and the Philippines were initially decimated by the impact of colonisation but more recently have begun to reclaim some control over their lives and destinies. These Indigenous groups have regained power in terms of self-identity and reclaimed the right to make their own choices in terms of their life chances. I also want to show how this transformation is now beginning to have an impact on the non-Indigenous people who were previously the colonisers.

History of Indigenous Groups in Taiwan

Taiwanese Aboriginal communities were considered the original and sole inhabitants of Formosa, now known as Taiwan, until a major Han immigration occurred from mainland China in the seventeenth century (Blust 1999). Initially living on the fertile, lowland plains of western Formosa, they were sometimes brutally displaced into the southern and eastern highlands following this immigration. Today numbering around 530,000 people and making up a proportion of the population of 2.3% (Trejaut et al. 2014), they evidence greater similarities to the Filipino Indigenous Peoples than to the Chinese Han. As, with so many other Indigenous people groups, a number of their languages have become endangered or extinct, many experience sub-standard education and high unemployment rates and have lost many of the defining aspects of their culture (Anderson 2000; Zeitoun and Yu 2005).

Historical Experience of Colonisation in The Northern Territory of Australia

For more than 1000 years prior to European settlement, coastal Aboriginal communities in northern Australia engaged in commercial activities with people groups from lands now known as Indonesia, Papua New Guinea, Malaysia and other regions within South-East Asia, including China—but they remained as self-determining and sovereign communities (Flood 2006). Indeed, the Dutch traded between communities on the north-west coast of Australia and the islands of what was known as the Dutch East Indies (now Indonesia) from the early 1600s. It was only following the invasion and settlement from Europe that colonisation in Australia commenced.

Permanent settlement by the British is considered to have begun in 1788 in Sydney Cove, but the ongoing process of colonisation and settlement occurred in different parts of Australia over a period of close to 100 years, both prior to and following 1788, by non-Indigenous people groups from a range of European countries.

Colonisation and settlement in the Northern Territory of Australia occurred in the northern coastal areas around the port city of Darwin and into the Territory's southern borders in central Australia at a similar time. British explorers, such as John McDouall Stuart, travelled north from southern Australia into the region of what is now the Northern Territory during the 1860s seeking grazing land for livestock (Morris 2017). The first European permanent settlers came to Port Darwin in the north in the late 1860s. Colonisation into regions and amongst different local communities within the Northern Territory inevitably and inexorably followed.

With colonisation came the decimation of the Aboriginal community structure. As occurred in other regions of Australia, European settlers brought rape and wilful slaughter. Introduced diseases and poisoned flour were distributed (Dudgeon et al. 2014). In some areas, the objective was to clear the lands of Aboriginal people to enable the development of pastures and later mining. In other areas, Aboriginal people were used as extremely cheap (essentially slave) labour. European settlement led to displacement of Aboriginal communities from their traditional lands and the removal of Aboriginal people from their normal way of life. Aboriginal communities were often relocated onto reserves, often into arid areas and away from the most productive land. Policies of genocide were attempted in the late 1800s to remove what were considered 'sub-humans', and the 'whiter' Aboriginal children were removed from Aboriginal families and given to non-Indigenous families with the express purpose of removing Aboriginal blood. Legislation to this effect was promulgated from the late 1800s to the mid-1900s (Dudgeon et al. 2014).

Aboriginal people experienced historical and repeated traumatisation, leading to disempowerment and loss of control, which then became re-enacted in families and communities (Ober et al. 2000: 245, 251). The consequence of this was an unhealthy dependence on European provision of food, health and other services, which persists up until today. There has been a loss of connection to land, and the introduced issues of gambling, illicit drugs, alcohol, unemployment and the consequent family violence continue to plague Aboriginal communities (McLaren et al. 2015). Aboriginal communities in remote locations in the Northern Territory have lacked the resources for education, self-determination, employment and the management of their everyday lives.

History of Colonisation in Northern Luzon, Philippines

There are approximately 110 major Indigenous People (IP) groups in the Philippines, comprising an estimated 14–17 million people or about 13–16% of the total population (De Vera 2007; UNDP 2017). Although theories vary, IP communities are regarded as the first inhabitants who were later displaced by waves of immigrants,

initially from the islands now known as Indonesia and Malaysia as well as from Taiwan and Hunnan (Zaide 1999; Halili 2004; Tan 2008). In 1521, the Spanish colonial period began in the Philippines (Zaide 2006). In 1898, the United States became the new colonial ruler of the Philippines until Independence in 1946 (Frontline World 2017). During this 450-year period, IPs were continually dislocated, some developing impoverished communities in metropolitan areas and others living in remote communities. In the northern island of Luzon, many IP communities were pushed from the lowlands into the less fertile north-east highlands to make way for the aggressive and ultimately unsustainable cash crops of the incoming regimes.

These Indigenous people groups are amongst the poorest and most disadvantaged social groups in the Philippines. Many experience illiteracy, unemployment and poverty (De Vera 2007). Those in Northern Luzon depend on traditional agriculture, but their lands have become degraded with the introduction of unsustainable farming practices.

Changes Begin to Occur

The story of colonisation and the consequent displacement and ongoing deleterious living conditions of the Indigenous peoples of Taiwan, the Northern Territory and Northern Luzon are strikingly similar. I was privileged to meet with some of the Taiwanese Aboriginal groups in 2013; I conducted a project with some of the Aboriginal groups of the Northern Territory in 2015 and engaged with some of the Indigenous People groups in Northern Luzon in 2017. Following decades of striving for recognition and some sense of self-determination, it was during the 1980s–1990s that the voices of these Indigenous communities began to be heard by their respective governments and the beginnings of self-reliance commenced. Often this incorporated a re-acclamation of cultural definition, relearning of Indigenous languages with elderly people teaching younger people and associated pride in their community stories, myths and spirituality. It has involved a gradual improvement in economic conditions with aspects of eco-tourism, promotion of Indigenous arts and crafts and greater educational opportunities for younger Indigenous people. But there is a long way to go. From the experience of living in shame, a new sense of vibrancy and hope has emerged. I will share some of the stories from each of these Indigenous communities. This will answer the question: How has a transformative approach changed the life perspective and brought new life chances for Indigenous communities?

Methodology

Ethnography is the study of one culture from the perspective of another culture. As Spradley (1979) indicates, 'ethnography is a culture-studying-culture…It seeks to build a systematic understanding of all human cultures from the perspective of those

who have learned them' (p. 9). Culture can be defined comprehensively so that it includes groups of individuals who represent a different ethnic or tribal group and whose language, customs and activities are unique to that group. As Liamputtong says, through ethnography, researchers are able 'to understand the way individuals express their values, beliefs, and actions in and through culture' (Liamputtong 2009: 4). The essence of ethnography is that one person wants to see the world through the eyes of another person from a quite different background (Spradley 1979).

Using an ethnographic approach, I engaged with Indigenous communities in eastern Taiwan, in the Northern Territory of Australia and in Northern Luzon, Philippines. It was important to recognise that each group expressed its values, beliefs and actions in unique ways. I acknowledged that I entered each scenario with a curious mindset and attempted to view each culture without judgement and on its own merits. Thus my approach was to enter each culture with the intention of learning from the people within that culture.

Methods Used

In Taiwan, I primarily used non-participant observation, which is a purposive and systematic way of watching and listening to an interaction or phenomenon as it takes place (Kumar 2011: 140). I was fortunate in that I was introduced to the community as a researcher from Australia by other non-Indigenous Taiwanese who had been involved sympathetically with these communities for some years, so I was accorded a level of respect without having to earn it. So I met with some groups of Indigenous people, although not with individuals. However, there was a formality in these relationships, which I felt meant that I was unable to plumb the depths of people's thoughts.

In the Northern Territory, I used the technique of non-participant observation but also both in-depth interviews and focus groups in different communities. In-depth interviews are a way of inviting individuals to talk in-depth about their lives and experiences from a personal perspective. One writer describes them as, 'an interview with the purpose of obtaining descriptions of the life world of the interviewee' (Kvale 2007: 7). I listened intently, not only to the words but also to the non-verbal communication, facial expressions, body language and the mannerisms of participants. For most participants, English was not their first language, yet they chose to communicate to me in English without a translator. In some locations, I engaged participants in focus groups, which, 'enable both exploration and explanation of social phenomena' (Minichiello et al. 2008: 147). In a focus group context, there was opportunity to go beyond already developed ideas of participants and then to challenge them within the group until new ideas came forth. This enabled an exploration of the social phenomenon of a transformative approach to these communities' life chances (Minichiello et al. 2008, p.148). Both methods of data collection, individual in-depth interviews and focus groups were used amongst different Indigenous communities in the Northern Territory. Rich data were collected in

which people described to me the despair in which they have lived but the enormous sense of anticipation and hope of what is possible.

In various communities in Northern Luzon, again non-participant observation was used, and again I was accompanied by researchers who had been involved with these communities for many years, so I was accorded 'vicarious' respect. In this setting, focus groups were the method by which further data were collected. This was a choice made by the organisers but I was comfortable with it. As in Taiwan, the air of formality somewhat clouded my engagement with people. I would have loved to return and develop relationships more intimately with these people. I think this would have led to a much more nuanced discussion of the issues on which we touched. Interestingly, I was able to engage in these more intimate and less formal discussions with some of the researchers with whom I travelled, who were themselves Indigenous, although from slightly different regions but within the same area. This certainly added enormously to my appreciation of the issues.

Results

Taiwan

During a visit in 2013 to the highlands, my methods of data collection included observation and conversation with locals but no formal interviews. My base at Chaoyang University of Technology (CUT) in Taichung City was located on the western, more densely populated region of the lowlands, about 170 km south-west of the capital city, Taipei. Whilst at CUT, I participated in a festival in which a number of Indigenous people groups had met at the University, and I was able to talk with these groups. From there, I travelled 5 h south-east, into the highlands beyond Yushan National Park. I met and interacted with groups of elders and groups of entrepreneurs selling their locally developed wares, observed agricultural activities, was a guest at a local wedding, observed some eco-tourism ventures and shopped in locally operated, recently constructed markets. The national government in Taiwan has been providing funds, belatedly according to locals, to recognise the contribution Indigenous groups have and continue to make to the cultural heritage of this island. The whole experience in Taiwan indicated to me that steady progress has been made, but there is much yet to be done.

The dual purposes of protecting their heritage and cultural roots as well as removing them from a state of poverty and illiteracy motivated Taiwanese Indigenous groups to advocate for change. Due to their isolation and lack of education, these groups did not share in the economic boom experienced by much of the Taiwanese population during the 1990s and 2000s (Chou 2005). Nevertheless, Indigenous communities in Taiwan are closely linked with ecological awareness and conservation (Chen and Hay 2004). In my conversations, it was impressed upon me that Indigenous groups are keen to retain and promote sustainable development within their own communities.

Northern Territory, Australia

The Catholic Care Northern Territory (CCNT) is a non-government organisation which works primarily with Indigenous communities in the Northern Territory. CCNT invited a colleague and me to conduct some research in a number of Aboriginal communities across the Northern Territory and the Tiwi Islands. Although 2.8% of Australia's 24 million people are Aboriginal, the proportion in the Northern Territory is 25.5% (ABS 2017). Yet, even so, this significant minority of the Northern Territory population continue to experience a much lower standard of living than non-Indigenous inhabitants. My colleague focused his research in the northern areas, whilst I focused on the southern areas of the Northern Territory in what is considered central Australia. Based in the town of Alice Springs, I visited communities to the south and west, accompanied by a colleague from CCNT.

These communities recognised the unhealthy levels of dependence on government funding and support which had developed amongst community members, the lack of recreational and employment opportunity in remote areas for young people, the exceedingly high levels of unemployment and incarceration and the consequent lack of purpose. There are unacceptably high rates of preventable disease and early deaths, including suicide rates considered to be three times the national rate (ABS 2014). Individuals and groups spoke to me of the sense of despair which has plagued remote Aboriginal communities in the past.

These community members also spoke to me about some new opportunities. In terms of social and emotional wellbeing (also known as mental health in non-Aboriginal communities), one technique which has been introduced is a Family Wellbeing Toolkit. Originally developed by a Larrakia woman from northern Australia, the Toolkit has been designed as a support programme which has evolved out of a partnership between the Aboriginal collective intellect and a western therapeutic model (McLaren et al. 2015). It does not require English literacy and can be used to assist individuals and groups to better manage issues such as gambling and financial issues, family violence, drug and alcohol use. This model has been distributed into communities throughout the Northern Territory, including central Australia. Local communities are being trained to better manage preventable health issues, such as diabetes and obesity.

Initially provided with government funding, local community members are being trained in localised forms of eco-tourism. The anticipation is that community members will become skilled and confident to highlight the rugged beauty of the central Australian landscape whilst maintaining a respect for its sustainability. Despite having a long history in art and craft, only recently has Aboriginal art and sculpture received international acclaim. In discussion with various community members, this is providing an increased level of purpose to their lives.

Northern Luzon, Philippines

During 2017, I visited St Mary's University (SMU) in the city of Bayombong in the province of Nueva Vizcaya in Northern Luzon. From there, I travelled north into Mountain Province and Ifugao Province to meet with and conduct some research with groups of elders and significant tribal members. I discussed with them about cultural changes, the value they place on their unique cultural traits, what can be preserved and what needs to alter, adaptation to increasingly changing lifestyle patterns and how the cultural link with their future generations of younger people can be maintained. They were both despairing and exceedingly hopeful, probably in equal measure. The elders spoke with great pride of previous cultural practices, some of which will be lost with the passing of their generation, and yet other practices which they intend to maintain and pass onto following generations.

Along with broad changes which have occurred in terms of political recognition of Indigenous communities in the Philippines and elsewhere since the 1990s, changes are being noticed in the dynamics of family structures, and ongoing adaptations need to be made to a constantly evolving lifestyle. In studies previously conducted by researchers at SMU amongst Indigenous groups, one example of this is the generational differences recognised between fathers and their adult sons in terms of family dynamics (Marquez et al. 2013). My discussions led me to believe that older generations, both men and women, are recognising that adaptations need to occur by older members of these communities—otherwise they fear that the younger generations will lose touch with the cultural values inherent in those communities. Change has begun to occur.

Writing in 2013, Dacles, Cadoy, del Rosario and Maslang documented the awareness of the Balangao Indigenous community to issues of health, longevity and wellbeing, education and climate change. With Dacles and del Rosario, I visited communities in the towns of Paracelis, Bontoc and Banaue in the Mountain Province, as well as more briefly visiting communities in Ifugao Province during 2017. Elders indicated a pride in the changes which have occurred to date and recognition of the further changes which need to occur. Along with this, however, a longing was expressed by these elders for a simpler lifestyle from times past but which can no longer be accessed.

In one location, a group of largely educated women meet regularly, both older and younger women. They share stories, poems and writings with each other and provide a wonderful support mechanism within their daily lives. Some of their writings have been published in a book entitled *femi.nest* (Sabanpan-Yu 2014). Some thoughts are expressed in English and some in the mother tongue of the different authors. These writings speak of the interaction between the private and public domain, of the challenges this brings and of intimacy as reflected in society and culture. One of the poems is entitled *Requiem*

> (p. 41): dearest departed,
> do not show up this midnight.
> savour your slumber in the sweetness of afterlife.

plunge yourself into the hospitality of the unearthly breeze.
reveal yourself to the light that will behold you.
embrace yourself in that righteous state.
you're at home now.
rest in its peace.
visit this world no more
lest you forfeit the bliss of your tranquility.

This poem speaks of the intimacy and care expressed for a dearly departed loved one who is now at peace. But it also resounds to the ongoing struggle of life in an Indigenous community and the relief when that struggle is over. Another poem by a different author is entitled *Closure* (p. 63), and I have chosen excerpts from this:

The world is a history of people killing each other: Landlord versus peasants;
Rulers versus slaves;
Oppressors versus the oppressed.
You must realise
Beside these holy wars
Ours is really just a small sorrow,
And certainly not as sad
As a little beggar boy,
Sleeping off a breakfastless dinnerless day.

Indeed what is more significant, the struggle for recognition of those who are oppressed or the small child who goes hungry? And, yet, they are so intimately connected. The cost of a culture which is refused recognition is reflected in the immediacy of the everyday struggle to survive. Change has begun amongst the Indigenous groups in Northern Luzon, but it is moving at such a gradual pace and has not yet touched everyone.

Discussion and Conclusion: A Transformative Process

In each location, Indigenous people groups have initiated and continued to develop a process of transformation. For the last several decades, Indigenous peoples have sought power and recognition to bring about change in their communities. The power they have sought has been the power to acknowledge their self-identity. Power is often misunderstood. Some individuals and groups in different societies feel they can only have power if they demean other individuals and groups, so their power becomes domination. Historically, this so often happened when non-Indigenous peoples colonised Indigenous groups and sought to conquer and control them. In my experience, Indigenous groups today do not seek domination but simply some level of equality to enhance the wellbeing of their peoples.

In her book, *Planetary Passport*, Janet McIntyre-Mills makes an interesting observation: 'Precariousness is a place for thinking the ethical because it begins with the Other, rather than with the self' (McIntyre-Mills 2017: xxxvi). Despite the fact that precariousness links us to others for the sake of the wellbeing of the Other, I see precariousness as essentially a selfish emotion. We recognise the requirement

to engage with the Other only because we are vulnerable and precarious in our aloneness. This is unfortunate because the seeking of Indigenous communities for recognition from the powerful, non-Indigenous communities, which have ravaged their land, will only be successful when those non-Indigenous communities acknowledge their own selfish, personal benefit to be gained as they indulge in this recognition and inclusion of the Indigenous Other. This benefit may come in the form of financial benefit when Indigenous communities are more economically self-sufficient; it may be in the form of kudos and acknowledgement from the international community at their attempts at social inclusion; it may be in the removal of criticism from the international community in the form of United Nations Human Rights, Amnesty International and others. But it is still essentially a selfish motive which drives non-Indigenous communities to offer a limited form of self-determination to Indigenous communities. But, as McIntyre-Mills goes on to say, 'If we are prepared to recognise not our resilience, but our mutual vulnerability, it provides a basis for stewardship within and across boundaries. Our sense of place is extended when we recognise that we are all reliant on others and need to be able to depend on our connections with others' (McIntyre-Mills 2017: xxxvi). Despite the self-centred approach of the non-Indigenous communities, a reliance on Indigenous others and dependence on connection can be mutually beneficial.

Prior to colonisation, Indigenous communities did not think in terms of 'possessing the land' on which they lived. They shared the land with 'mother earth' and shared her resources with all sentient beings. They nurtured and felt nurtured by the land of which they were a part. Following colonisation and the introduction of the concept of the nation-state, the land became a possession to be exploited. Particular identifiable groups of individuals distinguished themselves from other groups, based on ideological and cultural beliefs, and sought domination for political and economic gain. The concept of 'divide and conquer' became endemic to such groups.

Under a transformative approach, some older members of Indigenous groups once yearned for a return to the precolonial era in which land was sacred rather than being a possession to be exploited. They also recognised that such a return to a past era was not feasible, so they are beginning to adapt to a new modality. From once being in a position of submission to the colonial powers, Indigenous groups now recognise the importance of adapting to modern life practices. They also recognise that the colonial powers themselves also need to adapt to ensure sustainability. Such forms of sustainable living encourage a new form of democracy and governance which is supportive rather than confrontational. 'Cosmopolitan democracy and governance requires a multilevel and multiagency approach within and across overlapping regions… (There needs to be) an effort to re-conceptualise cross-boundary democracy and governance to protect human beings and the planet' (McIntyre-Mills 2017: 136). Indigenous communities want to bring a new understanding to non-Indigenous communities and encourage them to reconceptualise their mode of living and communication within the physical world. The ways in which Indigenous communities have embraced new ways of operating in the economic and social sphere have encouraged this. This has included eco-tourism whilst still engaging in the more sustainable Indigenous forms of agriculture and the selling of Indigenous arts and crafts which celebrate the land from which it emanates.

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Chapter 14
Strengthening Social Reform in Rural Areas Through Women's Self-Employment

Harnida Adda and Yvonne Corcoran-Nantes

Abstract This paper is based on the empirical experiences of self-employed women in rural areas of Central Sulawesi, Indonesia. Despite limited options, working in low-paid jobs in formal industries or as seasonal paddy field workers is no longer a priority because these women can configure their own "fieldwork" in which they can achieve a stronger self-independence and a higher level of satisfaction. This paper will show that women's involvement in entrepreneurial activities provides benefits beyond a mere economic survival strategy. Their involvement in self-employment can lead rural women to initiate changes in the way people configure their existence as they shift their consciousness and capabilities as individuals, take the initiative, and make the commitment to improve the welfare of their families and others. Instead of perceiving their traditional roles as barriers to their advancement, rural women's entrance into self-employment endeavours has progressively led to personal and social revelatory change.

Keywords Social reform · Self-employment · Rural women · Indonesia

Introduction

The economic crisis that hit Southeast Asia in the late 1990s led to predictions of mass unemployment and an inability of the national economies of pivotal Asian countries to withstand the crisis. Nowhere more so than Indonesia, a country that across the previous decades witnessed substantive economic development, which reduced poverty and raised general living standards in both urban and rural locations. Yet nowhere did these predictions hold and in Indonesia the crisis may have led, at least initially,

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to a reduction in male employment conversely, there was a noticeable rise in female employment across the rural/urban divide (Thomas et al. 2000). Moreover, the nature of this employment was on the one hand family businesses such as farming, becoming central rather than residual labour but most especially self-employed. At the time Elmhurst described the women as "forced" entrepreneurs and as such inferred a situation, which was at best temporary. Here we demonstrate how the demand for women to engaging in income-generating activities especially in the rural areas as a response to a crisis developed into women's self-employed ventures which guaranteed women's economic independence and an expanded set of life choices in the conservative sociocultural environment, that is, Indonesian society.

Clearly, the emergence and influence of modern culture through globalization have shifted some of the social values that were inherently embedded in Indonesian society. The intersection of conventional and modern culture has brought women into a new level of involvement in public spaces and participation in economics. This transformation offers Indonesian women the opportunity to become more independent and to renegotiate their gender roles, both in the household and the public domain. An unprecedented economic crisis, which struck Indonesia in 1997, provided the impetus and demand for female labour across the economic sector (Gallaway and Bernasek 2002). In the changing face of the national economy, Indonesian women opted to combine productive income-generating activities with a culturally determined prioritization of motherhood and family. In this way women could demonstrate and develop their skills through self-employment. Moreover, the crisis led to a major transformation concerning women's roles in the rural areas of Central Sulawesi. Due to survival strategies women adopted in the economic crisis, this facilitated a challenge to their traditional status as low-paid agriculture labourers or unpaid productive workers, as wives and mothers, in the home to seeking long-term income-generating opportunities.

Generally, demographic change and demands in the labour markets create a shift in labour market participation, and the rate of women entering the labour market in Indonesia has increased moderately, although remains relatively stagnant (Schaner and Das 2016). Despite the increase in number, ironically, only those who have higher educational attainment and live in urban areas are able to acquire 'strategic' positions in various formal sector employment, while women with secondary school completion and live in rural areas occupy middle to lower positions.

The variation in the status and situation of women concerns the government and scholars, especially feminist economists to present effective solutions for socio-economic equality for women regardless of their residential geographic location. Intersectionality challenges feminist ideologies that focus on female autonomy with an emphasis on gender interdependence, gender inequality, and complementary roles. Socio-cultural reality and class difference impacts upon the context of strategies for change and its outcomes. For example, women of the upper middle class enjoy the effects of relatively equal gender relations, while women of the working poor class, especially in rural areas, do not have the same opportunities (See Niehof 1998). As the socio-cultural norms among rural women vary, their strategies to face specific economic problems may also differ. Thus, while some

women remain in the agricultural sector, others leave to work in private services or in the manufacturing sector.

Despite limitations, Indonesian women in urban and rural areas have been actively engaged in various economic activities. Most of the women in urban areas work in paid employment in both formal and informal sectors such as trade, services, and industries, while the majority of rural women are involved in the family business economy and engaged in agricultural production (Azahari 2008). However, the decline of the agricultural sector has led to rural women looking at other means of generating income, and this has led to a push in the development of entrepreneurship in Indonesia (Tambunan 2009).

The decline in women's participation in agricultural employment is partly due to their increased participation in other sectors such as trade and services, which enable women to establish small-scale informal income-generating activities with small capital, despite low levels of productivity and income. Therefore, a gradual diversification of economic activities run by women, characterized by a strong reliance on nonagricultural sources, became a new trend (Dethier and Effenberger 2012; McCulloch et al. 2007; Priebe et al. 2010).

This study investigates the impact of the dynamic involvement of rural women in Indonesia, especially in micro home-based sector, fried onion and sarong weaving production, in Central Sulawesi. The decision of women to be economically independent by participating in micro self-employment presents a new dimension of rural women becoming agents of social change. Through conducting in-depth interviews, focus group discussions, and participant observation, this study shows that the contribution of rural women through home-based self-employment goes beyond the individual and her family. Female entrepreneurs provide job opportunities for other women, and the product choice of making fried onions and sarong weaving contributes to the conservation of local cultural specialties. Based on the subjective experience of female fried onion producers and sarong weavers, this study suggests that the integration of women into home-based industry generates benefits beyond that of economic survival. Self-employment has led women's involvement in the job market to be seen as "real work" which has positive impacts in increasing women's personal capabilities.

Fried onions and Donggala sarongs are very well known in Central Sulawesi and have the potential to be marketed outside of the region as distinctive non-agricultural commodities of Central Sulawesi. Unlike other home industries in Central Sulawesi that are mainly operated by men, such as furniture manufacturing or the production of farm-related products like copra, the production of fried onions and traditional sarongs is predominantly undertaken by women. This study demonstrates that women in rural areas who pursue home-based self-employment can build strong self-confidence and make a significant contribution to the household. Self-employment not only empowers women individually but also elevates other women in their community, providing an opportunity to earn their own income by working either full-time or part-time.

Usually, the pathways to women's empowerment through employment practices are impacted by various factors. Some offer advantages, and others create barriers

that impede women's entry and advancement in the labour market. An immutable patriarchal system, unfair job segregation, and discrimination against women trigger economic disadvantages within the formal employment sector. As such women in developing countries are obliged to consider alternative economic activity through which they make a significant contribution to family income. These options, however limited, include entering the informal employment sector as hired employees, opening their own businesses, or continuing to work as seasonal farmers. Moreover, employment decisions that rural women make are based on the options available to them wherein they can demonstrate their values beyond the conventional focus on women's 'innate' skill set. The value of their work contributes to the improvement of their status. Consequently, young women in rural areas with an above-average education reduced their participation in the formal job markets and moved into the informal sector (Schaner and Das 2016). By opening their own businesses, women engage in an act of self-empowerment that speaks to their career preferences while they simultaneously opt out of formal employment relationships. Women with their own businesses believe in their capacity to succeed (Kraus-Harper 1998). Working in low-paid jobs in formal industries is no longer a priority for rural women because they can configure their own 'field work' in which they can achieve a stronger self-independence and a higher level of satisfaction. By working on their own, these women enter a personal space that gives them the opportunity to develop their creativity and exercise independence. Thus, the self-employed women in this study were responsible for the overall management of their businesses without major help from their husbands or family members.

In other words, women owning microbusinesses appear to be the most common self-employment activity. Through their activities, the women have attempted to create a new role for themselves by challenging and transforming the patriarchal structure of their households. Through women's initiative and commitment to developing their income-generating capacity, the women gained a respect and authority that enabled greater participation in family decision-making creating more equitable power relations within their households.

Rural Women's Home Businesses and Engagement in the Local Economy

Women in Central Sulawesi are active in various forms of remunerated and non-remunerated employment in formal and informal sectors. The employment choices of women in this region depend on geography and personal preference, which are influenced by age, family background, education, and social networks. Women in urban areas usually work in government institutions or in professional services such as pharmacists, nurses, doctors, teachers, beauty salon owners, and traders. Meanwhile, women in rural areas work predominantly in farming, while others are factory workers, micro-entrepreneurs, immigrant workers, and a few full-time mothers. In particular, women who live in the mountains or river areas commonly

work as stone crushers and tend to livestock and/or farm, while those who live in the forest area predominantly work in agricultural activities such as paddy cultivation. These distinctive work activities are primarily due to rural women having a much lower probability of becoming salaried employees than women in urban environments (Comola and de Mello 2013). Moreover, this has been exacerbated by a decline in industrial production and manufacturing exports which led to a large number of female employees being made redundant (Klaveren et al. 2010).

For some women in this study, it was the desire to shift away from high labour input and low financial return to agricultural activities as a reason to become self-employed engaging in non-agricultural activities with higher financial return relative to labour inputs. This was experienced by LUS who used to work in a ricefield. She spent most of her time helping her husband, a seasonal farmer. Every day, her husband was first to the field, while LUS prepared their children for school. She also needed to prepare their children to go to the home of a nearby relative after school. By midday, she would return home and prepare lunch to be taken to the field. After work, LUS would pick up her children and prepare dinner for the family. She also had to spend time helping her children to finish their homework before she could rest. Living in such an inflexible situation made her think about switching jobs, as she wanted to spend more time taking care of her children. She remarks:

> I am in this [fried onion] business as an alternative to farming. Working in the rice fields needs more time and energy but you receive less in return. It requires me to leave home at dawn and return at dusk…I needed money and I wanted to have more independence and more time to spend with my children. (LUS)

Thus, with a little money she borrowed from a neighbour, she started her own business. At the time LUS was interviewed, she had been in the business for 5 years, and she was able to identify a real change in her family's lives from the time she started the business to the present time. Most importantly, she spoke of the personal benefits of feeling happier and more fulfilled. There was more time to enhance her skills and to take care of herself. Even though the income she earned from producing and selling fried onions was modest, it was more than she earned as a seasonal agriculture worker. There was the satisfaction of owning her own business and above all the flexibility in working hours that allowed her to spend for more time with her children. By taking the initiative to become self-employed, she enjoyed greater respect and appreciation from her family as someone with a strong personality and a real sense of commitment; not least because ambition is highly valued in her family.

In a similar vein, another participant, ROS explained her decision to make the shift from waged worker to self-employed in the following way:

> I had to decide between working in agriculture as a seasonal hired worker or in a factory as a low paid worker. Then I decided to open my own business. I did not want to be a paid worker or work in a bad workplace. Although it was only a small business, I wanted to work on my own. I learned from my family and friends how to open and manage a micro business and I gained peace of mind from my decision. I never regretted it.

ROS believes that the quality of her future is determined by her ability to evaluate a situation and to determine what is best for her family and herself. Therefore, she is

very careful in dealing with the life situations she faces. By taking into consideration her strengths and weaknesses, she finally decided to go her own way and be independent without depending on others. Although she had to work harder, the decision she made both meets her needs and brings her satisfaction.

Another participant explained how hard she had tried to get a job in a government office. In a highly competitive job market, a college degree did not help to reach her dream of having a "proper" job. Though she still had the opportunity to be recruited 1 day, she realised that it was better for her to utilize her time and management skills through self-employment. RAH has been self-employed for 8 years, and she expressed satisfaction with her achievement of being independent and of being capable to help her parents financially. She is not only independent financially but also in decision-making. Because RAH was single and able to take care of her parents, her parents felt proud that their daughter had taken such an initiative. RAH stated:

> I had hoped to work in a government office after graduating from college. But after years of trying and waiting, my luck had just never come. I became unemployed for a couple of years before I finally realised I had the opportunity to earn income by my own efforts. With a friend's help, I decided to open up this business from nothing. (RAH)

Overall, the primary reasons for women to get involved in home-based self-employment are to be economically active, to continue cultural traditions, and to deal with unemployment. Among other employment choices, the decisions to engage in home-based microbusinesses have been based on the women's personal preferences. Since home-based economic activities are relatively affordable, flexible, and easy to learn, especially fried onion productions, women who lack business experience have the opportunity to initiate and develop entrepreneurial skills. For example, many female weavers have acquired their weaving skills from training during their childhood. The only thing they needed to learn was good management skills so that they could solidify business strategies and stay in the business. Meanwhile, the women could maintain the effort to preserve their culture through the production of traditional food and cloth.

Women's involvement in self-employment has challenged the traditional conservative structure of gender power and social relations in Indonesia. Women's increasing awareness of being actively involved in determining their needs and goals amidst their limited options and various impediments shows their capacity for empowerment. As a result of their self-awareness and action, participants become more appreciated and respected in both their households and social lives. Moreover, women experienced a higher degree of power and authority to voice their opinions in the home, and in turn they have the opportunity to influence the lives of others in their communities. The existing literature concentrates on women's shifting roles from passive followers whose substantive contributions remain invisible subsumed by their domestic responsibilities into active agents who have a positive impact on their families and social environment (Godwyn and Stoddard 2011).

In order to meet their family needs, the self-employed women in this study strive to uphold their role as wives and mothers while at the same time establish their

independence as women entrepreneurs and develop their self-actualization as members of society. Participants' multilayered circumstances and reflections about their personal situations and their environments have affected their decisions and actions to meet their goals.

Women's economic empowerment is a part of the concept of ideal womanhood in Indonesia. This womanhood includes acts of providing for families and looking for self-fulfilment in work (Ford and Parker 2008). In addition, the concept of women's economic empowerment in Indonesia is developed based on cultural and structural factors, as well as individual entrepreneurial competence (Bushell 2008). For some respondents, the initiative to be self-employed arose from family circumstances whereby an economic downturn or a reduction in income frequently falls to women to resolve, to seek employment outside of farming and supplement family income. One of the fried onion producers remembered how her mother had to make decisions to improve their financial circumstances. She stated:

> Our family's economy relied on my father's income as a low-level civil servant. When the price of goods in the market was climbing due to the economic crisis, our family had a hard time fulfilling our basic needs. My mother, who had no working experience, was "forced" by the situation to do something to support our family. With her limited resources, she started this [fried onion] business and worked hard to sell the product in the local market. Although it was a very small business, the money she earned from selling fried onions enabled our family to survive. When I finished school, I was trying to search for a job at a company. In the meantime, I helped my mother with this business. Time passed by, and now I am making a living with it in order to support my husband. (NIR)

Rural women's ability to make decisions concerning their own livelihoods, families, and surroundings connects their thoughts and actions to their goals and desires, thereby increasing women's awareness of their independence and self-esteem (Kabeer 1994). Women's initiative, determination, commitment, and persistence contribute to the value of the work. Recognition of these intangible factors, as well as women's decisions to be involved in self-employment, influences society's perception of women's capabilities. It is not the money that plays the main role in defining women's status, but the perceived assumptions, rules, and norms that strongly influence how society perceives women's work and how women make choices (Folbre 1994; Sen 1987).

Making the decision to be self-employed can serve as one part of women's empowerment. The process of the decision-making demonstrates the ability of women to expand possible alternatives of what they can do to be better off. The process includes the exploration of women's personal capabilities to build self-awareness and creativity in determining their own choices. Needless to say, the process of empowerment is not instantaneous and is not always measurable. However, the impacts are observable through the changing lives of women. The respondents acknowledged that their involvement in business was not an instant process but one that gradually helped them to become strong and independent. They observed that their roles as self-employed women in the family shifted and created substantial transformations in the structure of families. These experiences impacted their interactions with their husbands and children. One of the respondents, a single woman,

envisioned managing her future family based on the way her parents conducted their relationship. She recalled:

> My father and mother had good teamwork in our family. Both of them influenced and inspired me a lot about how to build a dynamic family in which each member respects one another. (RAH)

Furthermore, giving voices to these women will contribute to the possibility of reassembling the gendered discourse on women entrepreneurs as actors in both the household and public space. Given the marginal status of women, an inquiry into the role of self-employment in women's empowerment is highly relevant for policy reforms so that their significant contributions in the household and society can be acknowledged and supported. When women engage in a new business venture, they face multiple impediments to advancement. The intersection of social and financial resources with cultural and technical barriers prevents women from obtaining full engagement in economic activities.

In addition, one weaver, NAT, experienced substantial transformations in her household, particularly in the way the family members interacted with one another as a result of her involvement in the business. She described the change as follows:

> My husband used to be the prime breadwinner and decision maker in my family. I have always asked my children to ask their father when they needed to buy a bicycle because I could not make decisions on my own. However, as I started to be more actively involved in the households' affairs, my husband entrusted me to solve "big" problems that he used to tackle, such as family visits or investments. The way my husband and the kids appreciate my ability makes me happy and respected. I am pleased because my husband has finally acknowledged my role as his equal companion in the family.

Once women engage more in productive income-generating activities, they inevitably face substantial role transformations. The increased level of participation of the women is not measured by the amount of money she brings into the house, but it is more about their improved capacity in managing family affairs. The involvement of rural women in self-employment enables them to develop managerial skills that were not initially explored to its full potential. In their businesses, women can practice their decision-making skills. As a result, they are more respected and their voices are valued more. Women's increased capacities open doors for them to become qualified partners for their husbands and role models for their children.

The interviews and focus group discussions in this study revealed that women participants have experienced substantial power transformations in their households. Regardless of the existence of a gender division of labour among family members, these women have exhibited considerable skill in managing their businesses. This in turn leads men to trust them to be in charge more with respect to family-related issues, and therefore, women are more appreciated by their husbands and families. Along with their achievements in their own businesses, the self-employed women's contributions are no longer undervalued or limited to domestic affairs.

In addition, managing their own businesses also creates a sense of fulfilment. Increased confidence and satisfaction as a result of operating a business affect their sense of independence, arising from women's internal strength. This value is

significantly empowering for women because they love their work and enjoy their role without being forced to work under pressure. In a self employed women's focus group dicsussion held in 2011, all of the participants expressed similar responses as represented by this statement:

> As women, we want to contribute more to our families and to the community. Being self-employed and taking the risks associated with it empowered us economically and enabled us to support our families to fulfill our daily needs. It feels so good to be independent and to not work under other people's control.

Creating and working in self-employment not only gave these women financial satisfaction, but beyond that, it helped to enlighten them and thus to strengthen their self-confidence. As MAR remarked:

> Making my own money by working independently gives me material and non-material satisfaction. While it is possible to add to my family's income, my business makes me confident. Even though it is small, my earning enables me to buy extra clothing, take a small vacation, and provide special meals to celebrate *Eid'ul Fitr* with my family.

The emergence of self-confidence enables MAR to manage her household better and to provide a better livelihood for her entire family. Utilizing her free time in productive activity also allows her to experience things that she had never done or had rarely done before. As WIR adds:

> Even though taking care of a business at home has required me to have extra energy to catch up with other things, I am happy with my decision. I gain a lot from it and it makes me feel important and autonomous. (WIR)

The above quotations highlight respondents' reasons for increasing their economic contributions to their families. Regardless of income and working hours, they feel empowered and happy about their ability to earn money while remaining committed to fulfilling their domestic roles. Being empowered, in this case, refers to the opportunity to determine the options to achieve their goals. Also, the statements articulate the women's participation in determining their families' well-being, the women's power to better negotiate in the decision-making process, and the women's ability to allocate their earnings to cover the needs of their children, of their family, and of themselves.

The Challenges of Self-Employment for the Women of Central Sulawesi

Although the informal microbusiness sector has enabled rural women to improve their own livelihoods and that of their families, self-employment also presents challenges for these women. As business owners, they are responsible for the survival of their businesses. Insufficient managerial skills, limited networks and financial resources, and a lack of knowledge of running business operations each require these women to perform extra work. As a result, the women business owners are less

able to take advantage of emerging opportunities in the broader labour market. Inadequate support and lack of updated information available to rural microlevel business owners hamper them from advancing their businesses. Though they independently manage a business from home, these women find it difficult to deal with financial risks, especially in accessing loans and paying employees' salaries. Also, their reluctance to join formal and informal organizations is one of the elements that challenges their existence in the business domain due to limited networking.

In general, gender-related challenges create obstacles in the businesses of self-employed women. Due to their status as women, rural women often have limited skills and abilities in business. Also, their movement in public space tends to be restricted due to traditional cultural values that are highly emphasized in women's roles in domestic spheres. Furthermore, the women often lack technical and structural support that would help their businesses be more efficient.

As mothers and wives, women workers have the problem of balancing their professional activities and domestic roles. The women participants know how to make money without impinging on their roles as caretakers. Since maintaining the balance of family and work is important in determining their success as women entrepreneurs, the participants believe that home-based self-employment effectively solves the problem of fulfilling their dual roles. Although there have been times that the women have to work long hours, the women feel that working at home has helped to ensure that everything has been taken care of, both in their families and businesses.

> In the morning, we take care of the children and husbands, and then we work until the afternoon. When the husbands and children come home, we are usually almost done with our work. Sometimes, we are still working when the kids get home, but they get used to it. (Sarong weavers' focus group discussions)

The lack of raw materials is the most common concern of self-employed women from both industries. This concern relates particularly to difficulties in finding high-quality raw materials at affordable prices. For instance, even though the land in Central Sulawesi grows the specific type of onion needed for fried onion production, there are times when these micro fried onion producers find it difficult to access the commodity because the larger producers have taken all of the supplies. A respondent expresses the frustration of getting the best quality raw onion as follows:

> Fried onion business is less complicated than other home-based businesses. There are plenty of resources available. However, sometimes searching for the best raw materials gives me a headache. (HUD)

A few times a year, there are circumstances in which the supply of raw onions is insufficient to cover the demand of the growing number of fried onion producers in the area. The larger producers serve a larger market segment, and they use advanced onion processing machines. As these producers have considerable capital, they can afford to buy the raw onion supply in large quantities and at lower prices. This leaves women entrepreneurs who have limited capital unable to compete. As a result, these women sometimes lose the opportunity to get good-quality onions at affordable prices.

In response, most of the women respondents assign their husbands or male relatives the responsibility of getting the onions from distant regions. Other times, the women contract agents to transport the produce. The ability of women to make decisions regarding the delivery of raw materials reflects their improved agency and managerial skills. Women's reliance on their husbands and male relatives in the procurement of raw materials in distant areas is due to both safety concerns and economic reasons. Though the women prefer to recruit their husbands or male relatives to pick up the materials, the women are still in charge of negotiating the price. Indeed, the participation of men in helping women while the women handled the business reflects women's domestic authority.

> If it was me traveling to obtain raw onions from the farmer in the other region, then the operating costs would be high because I would have had to rent a car. If my husband did it, he could use a motorbike to lower transportation costs. That is why I asked him to do it. (AET)

The female weavers face a similar situation. They find it difficult to obtain the best quality yarn, which is usually sold in the local market or in specific stores. Unlike the women in the fried onion industries, the weavers do not need to travel very far to obtain their materials. Instead, the obstacle that these women face is waiting for materials to become available when the larger woven sarong producers have reserved most of the stocks of yarn. This situation affects the production of micro weaving businesses. In these cases, the women weavers return to work in the fields for 2–3 days while waiting for the yarn stocks to become available in the nearby store.

> The main challenge for us is related to the procurement of yarn. When the store runs out of yarn, we have to wait. Alternatively, we could buy from the agent but at higher prices. (NAI)

Another problem addressed by the participants is related to their financial situation. They are more concerned with their ability to pay workers than their ability to access financial institutions to obtain start-up capital. The problem intensifies, especially when sales decline. In order for the women sarong weavers to sustain the daily business operations, they have to make adjustments. In order to deal with this problem, they often ask workers to 'stand down' temporarily and then to come back when the situation improves. Some of the sarong weavers will deal with this situation by seeking funds to cover the payments that must be paid to workers. After getting the money from their sales at the stores that sell their products, the self-employed women can pay their debts. Other times, the women have to postpone paying their workers until the payment from the agent stores is received. Because the workers come from low-income families, the women owners try to avoid laying off workers or postponing payments, because the workers' families rely on these supplementary incomes to fulfil their daily needs. Yet often, the participants have no other choice but to resort to these payment delays as a matter of entrepreneurial survival.

Another challenge participants have addressed is the issue of health and well-being. When the owners, employees, or their families become sick, it affects their business operations, and the business is not able to produce at the same rate. Due to the micro-nature of the business, illness has a great impact on potential

production and revenue. Well-being is important to sustain the work rhythm. As ROS underlined:

> When I got sick, it was really difficult for me to control my business. My situation affected my workers and made my business slow down because I could not work for days. (ROS)

The illness of workers and family members specifically impacts the service to customers. When these women entrepreneurs are sick, they may have to temporarily leave their jobs, and their absence affects their businesses' ability to serve their customers. This situation, in the long term, also affects their financial stability. SI describes the tension as follows:

> It was very difficult when one of us got sick, especially when we had orders due. We try to be punctual to maintain our customers. (SI)

A lack of health insurance or adequate health facilities for these business owners and their employees contributes to a slowing down of their business production and services. Although there are some local community clinics and hospitals available, these women cannot afford conventional treatment. Most of them stay home to recover and rely on traditional medicines and cures. They buy drugs over the counter because the price of prescription drugs is too costly. The increased length of healing time causes long absences, which affects their businesses' quality of service to consumers.

A worker's absence due to health issues or other causes also challenges the viability of the women's businesses. For instance, in the production of fried onions, in order to ensure the smooth running of the production process, each worker is assigned a different task such as peeling, slicing, frying, or packaging the onion. Although each worker can perform all the tasks, each person becomes more skilled when she specializes in one specific task. This task specialization helps to accelerate the production process. Therefore, the presence of these workers is very important, especially when there are many orders to be met.

> On busy days, it was really troubling when one or two women did not come to work. I usually called other women to come and help or I assigned one worker to do double tasks. But this is less effective and makes the process slower. (IRM)

Since these businesses serve only a few customers that rely on their orders, business owners must be careful not to disappoint them. Providing the best service is aimed at maintaining the current customers and attracting new buyers.

Furthermore, another challenge for the business owners is a lack of marketing channels that would enable them to expand their market sectors and to use otherwise unsold products. The limited market network has created difficulties for these women to deal with unsold products. This situation is true for women in the fried onion business because fried onions have a short shelf life due to their lack of chemical preservatives. It is a challenge to sell fried onions as quickly as possible to make sure the product is still fresh when it gets into the consumer's hands. On the other hand, the weavers are not concerned with the quality of their products deteriorating quickly. However, unsold products extend their product sales cycle and increase production costs. Therefore, they prefer to work based on customer orders.

In addition, self-employed women in the study also experience challenges in terms of competition among women and with men entrepreneurs:

> As women micro entrepreneurs, we have a lot of bigger competitors, but we believe that we have our own market segments. And our products, although they are less in quantity and processed by conventional means, have good qualities. (Fried onion producers and women weavers' focus group discussions)

While the women business owners acknowledge the similarities and differences among women competitors, the respondents also underline the importance of hard work and self-determination as requirements in dealing with competition. However, the majority of respondents do not see other women as competitors because they believe that all women have the same ability to balance multiple roles. In contrast, some respondents note that the existence of women business owners with relatively similar capabilities heightens the level of competitiveness. Also, some respondents argue that it is indeed difficult to compete with other women because they believe that women are unpredictable and more opportunistic than men. As a result, hard work is still necessary.

Most of the participants have agreed that the competition level among women microbusiness owners is slightly lower than their competition level among men, as the women have relatively similar qualifications, skills, and time allocations. For instance, two respondents express their views on competition as follows:

> I don't see the other fried onion producers as real threats, except that they make me work harder to improve the quality of my products. Sometimes I feel discouraged, but I soon realise that I have my own strengths and can stand on my own feet. (ROS)

Since we have relatively similar weaving skills, there is no tight competition between us. The only thing that matters is how quickly we sell our products (SUR).

Their responses reflect these women's perspectives on competition. Instead of being discouraged, competition has triggered them to be self-motivated. Also, competition encourages women to be more innovative and creative in their businesses. Irrespective of the competition, women realise that hard work is the most crucial element in their home-based enterprise.

The Transformational Journey

From a feminist perspective, it is important to underline that the idea of empowerment for women is a process by which they acquire the ability to make decisions independently. The analysis of empowerment in relation to gender equality should consider the importance of choice as the basic requirement in the analysis, in addition to considering the possibilities that are prescribed by the norms and conventions in the society. Therefore, a choice should be the result of some collection of options that are meaningful and have strategic implications for the women's lives. In other words, situations where the choice made needs to be specified are based on "the conditions of choice, the consequences of choice, and the transformatory significance of the choice" (Kabeer 1999: 460–461). It is the increased capacity in taking control over alternatives that makes the notion of choice empowering.

In general, there are five dimensions of women's existence to measure the notion of women's empowerment. First is economic participation, which can be seen through the reflection of women's existence in the workforce; second is economic opportunity, which underlines the opportunities for women to work outside 'feminized' professions; third is political empowerment, which refers to women's equitable representation in both formal and informal political institutions; fourth, educational attainment emphasizes greater access for women to education and literacy to enjoy better negotiation power in paid work; and lastly, health and well-being are dimensions of empowerment that consider the access of women to proper health care and nutritional needs (Ganesamurthy 2007: 34). As these dimensions highlight the improved situations of women, the ideal situation in which these dimensions can be measured cannot be achieved unless there is both gender and social equality. As women's empowerment strategically encourages women to transform their position in society, there is a need to see their distinct situations and formulate policies that represent their personal and collective power (Cornwall and Brock 2005).

Women's self-employment in developing countries has received considerable attention because it reflects the new structure of power that reshapes gender relations among women and men. Since self-employment has qualified women to strengthen their bargaining power in the household as a consequence of their active involvement in economic activities, women are progressively challenging and reassembling conventional perspectives on a segregated gender division of labour. Since the concept of self-employment has become increasingly seen as gender-neutral, it allows women to participate in businesses without emphasizing the domination of men or reiterating differences between women and men in entrepreneurial activities. In this case, the concept of self-employment or entrepreneurship, similar to other fields of employment, should not be centred on the idea of gender attributes but on personal competencies. Discussing the concept of entrepreneurship as a subject of gender always tends to accentuate masculine ideas and to conceal women's capabilities (Ahl 2006; Lewis 2006).

Indeed, the spirit of reform is capable of transforming gender hierarchies or gender-biased programs into more balanced and democratic relationships. In other words, the status of women is no longer limited to domestic affairs. Women also have the opportunity to take part in the public domain according to their capabilities and resources and to be equal partners with men in the development of change.

Managing micro- and small businesses for female entrepreneurs is a tool to actualize their visions of how work should be organized, to gain control, and to advance their technical and social skills (Johnson 2004; Raheim and Bolden 1995). Therefore, the advancement of women in self-employment is more than an economic phenomenon; it is strongly related to wider personal and social development, which underlines women's experiences, capabilities, and objectives as well as cultural and social transformations (Wells 1998; Chitsike 2000; Ayadurai 2006; Bruni et al. 2004).

This chapter has delineated gradual changes in women's economic and social transformation in Central Sulawesi, Indonesia. Without doubt the changes considered here have come as a direct result of a monetary crisis which has had a strong impact on household economies. While many people lost their main sources of

income, it opened new job opportunities. Socially, the crisis has blurred the distinction between women and men's access to the labour market and reconfigured gender relations in many communities. In the case study presented here, gender differences have increasingly dissolved as men and women have cooperated as equals during difficult times. In other words, strong patriarchal systems have been weakened by women's awareness of their ability to be involved in both household and society matters through economic endeavours. In Central Sulawesi this has occurred in one of the most traditionally conservative social environments which is predominantly rural and where gender relations are culturally specific and have been immutable over time. Along with that, the process of national reformation and decentralization in Indonesia also opened up access to and the opportunity for women to increase their participation in the public sphere. Regardless of their low representation, self-employed women in Indonesia and in Central Sulawesi have been able to position themselves in other forms of income-generating productive activities that reflect improvements in their self-awareness and independence.

Through a long and multi-faceted process, rural women in Central Sulawesi, in particular, have been able to transform their identities and to challenge their cultural roles. While still adhering to the teachings of religion, cultural practice, and traditional values, women in rural areas have proven their ability to make a substantive fiscal contribution to their families, community, and the local economy. Thus, Indonesian women are no longer seen as fully dependent and passive subjects. They have demonstrated their ability to act as independent people that have the potential to perform multiple roles as women, wives, mothers, homemakers, and breadwinners. These complex roles encompass and underwrite women's contribution to their families and surrounding communities. While continuing to enhance their capabilities, these women have also adapted to the challenges and pressures in developing their businesses for the sake of their families. It remains to be seen whether the recalibration of gender relations that this has required remains a permanent rather than temporary feature of the culture and society of rural Central Sulawesi.

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Chapter 15
Gender, Climate Change and Sustainable Development: The Unhappy Marriage of Engendering Policy and Practice

Yvonne Corcoran-Nantes

Abstract The terminal ending of the Millennium Development Goals (MDGS) with a claim to a 'revolutionary but realistic agenda' failed to deliver in any substantive way. We now embark on appraising and negotiating to implement a new agenda with the launch of the Sustainable Development Goals (SDG) in 2015. While there were 8 MDGs, SDGs consist of more ambitious 17 goals, and while the former focused on developing non-western nations, the latter now requires all nations to work towards a global development agenda. The UN claims that the SDG fund underwriting this global agenda is a game changer; so how does that work in practical terms especially when it comes to SDG5—the commitment to achieve gender equality and empower all women and girls?

Keywords Gender · Environment · Gender equality · SDG5 · Sustainable development · Policy · Aid programs

Introduction

In the proposed gestation period of the SDGs 2015–2030, what can we hope to achieve? Will SDG5 be the success story this time? If the advocated success of the MDGs is anything to go by, that could be in doubt. The claim made for MDG was that it had reduced extreme poverty by 50% globally; the smoke and mirrors of that claim are underwritten by a move from absolute poverty [those who have virtually nothing] to relative poverty [those who have almost nothing]. Important to consider is that those on the frontline of confronting and combatting poverty are women who are also the principal food producers, processors and physical reproducers of the family, the community and the nation. As Shiva once said, it is women that have kept the world fed all these years; it is they who are the principal knowledge bank, the seed savers and perennial environmentalists (Shiva 2016). If women are not

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recognised and supported fully in that role, if they are not the focal point of and pathway to sustainable development, then they will vote with their feet. Should women walk away from agricultural production in significant numbers, the risk to food security and human security could be insurmountable.

They say the road to hell is paved with good intentions and nowhere more so than in the field of social and economic development. This chapter will focus on project and planning both within Australia and its aid programs in the Asia Pacific within which the nexus between gender, climate change and sustainable development offers a cautionary tale for future development programs and political excursions into this area.

Australia's Commitment to Gender Equality and Sustainable Development

Both the MDGs now SDGs are gender inclusive, and as such it is possible to measure how effective the former has been and in doing so have some measure of what has been done, what we have failed to do and what should be the focus of future government investments on aid. Crucially, while countries ratified the global development agendas, there was no sanction for failing to implement them. In the case of SDGs, the onus was placed solely on the shoulders of each respective government to develop a national program and agenda for implementation and embedding within its programs both at home and abroad.

In 2014, Australia assessed its own performance in achieving the MDGs and in the advent of SDG5 of the poor performance of its aid investment with respect to gender equality and a general failure to have significant impact. This was most striking when looking at those projects that focused on agricultural development and DFAT produced a document which analysed the shortcomings of meeting gender criteria, the poor quality of previous programs and the way forward:

> While there are likely to be a number of contributing factors to the poor quality, the 2014 ODE Smart Economics evaluation found that DFAT's agriculture programs show little analysis and integration of gender approaches in program design. Further, the evaluation found that only one third of aid program staff felt confident in incorporating gender considerations into the aid programming cycle. Many identified a need for more sector-specific gender advice. (DFAT 2015)

Such an admission offers limited hope for change in the future when experienced staff long used to hearing about and, in some cases, trained in gender inclusive practice can admit to not knowing what to do or even where to start. Nevertheless, an important outcome of this bureaucratic soul searching was a resolute commitment to amend the failure of previous years and to commit to 80% of its aid investment to address gender equality issues. Moreover, that such investment would 'do no harm' to women and local gender dynamics, to work on agricultural value chains, technology and policy with a potential to empower women and women's empowerment, would be measured (DFAT 2015).

Perhaps the most important way we can address failings in the nexus between policy and practice is that top-down initiatives can reinforce the unmet promise. Field staff on the ground have to be prepared to learn in ways that will synchronise local gender knowledges with 'established' development practice to offer more nuanced and relevant programs that institute a pathway to gender-specific changes in agriculture unto the future. This would be a step forward moving beyond the consistent failure of advocacy for gender-focused futures to meaningfully impact on the implementation of policy and law.

Often there is an idea that donor countries funding projects in non-western countries have somehow got it right and that the kind of policies they develop and implement in their own country are more advanced and with proven outcomes (Alston 2014). Nothing could be further from the truth such as gender mainstreaming being implemented in non-western countries long before they are introduced 'at home'. Here we will consider a few agricultural programs which have as a focus the amelioration of climate change and sustainable development with or without gender as a focal point and their outcomes for gender equality.

Murray Darling Basin Plan

The saving of the Murray Darling Basin [MDB] project emerged out of the environmental crisis that reached a tipping point when a severe drought hit between the years 2002 and 2009. The drought exposed the environmental vulnerability of the MDB which occupies 14% of Australian territory, cuts across four states and is home to two million people as well as rare wildlife and birds. Successive years of drought led to a radical reduction of the water flowing through the basin which impacted not only on the environment but also the livelihood of the farming industry on which the local population either directly or indirectly depends. The bifurcated needs of farming and the environment were complex, and individual states 'managed' the drawing of water resources from the river individually and without consultation with other adjoining states with which they shared the resources. The result was a haphazard system of water management which advantaged the states at the upper end of the basin and severely prejudiced those situated in the lower end of the MDB complex where the Murray basin had started to silt up and dry.

Protest in the south with respect to the visible threat to the MDB as an important resource threw the farming community, environmentalists and other stakeholders in conflict with one another. Given this scenario the federal government drew the right to water management back into the central decision-making structure. It was announced that the preservation of the river basin, biodiversity and environmental protection would take precedence over the priority given to farmers drawing on the MDB water resources. The centralisation of water management in the region was carried out under the 2007 Water Act from which the Murray Darling Basin Plan (MDBP) was developed where water allocation and the buyback of water licences held by farmers would be coordinated and consolidated. The commensurate water

savings would be funnelled back into the MDB as investment in the recuperation of the environment. In essence, the goal of reducing the water resources dedicated to in favour of the environment and the future of the MDB. However, it represented a massive blow to farming interests, many of which were already crippled by the escalating debt acquired during the millennial drought years. Many farms were simply in no position to invest in a restructuring exercise of productive activities focused on water-saving measures, and for others, especially the dairy farmers, this was near nigh impossible. While the political and economic issues surrounding government decision-making remain controversial and complex, the social devastation that hit the farming communities surrounding the MDB bankruptcy, depression and suicide was irrevocable.

A little-known consideration is that 98% of farms in Australia are family owned passed from one generation to another often involving extended family interests and most especially a family enterprise within which women farmers are pivotal. It is often said that women are the most affected by climate change; already working a triple day in most cases, they must take up the slack and ensure the food security of their families, the community and the nation (Mignaquy 2014: 11–12; Alston 2006: 125). In the developed and developing world, women are the invisible farmers and remain so subsumed under the auspices of the family farming enterprise and their relationship to the principal resources property and land. In Australia this rings true as women are seen to 'marry into' farming rather than assume the role of farmers in their own right. The invisible farmer's project, a 4-year endeavour involving Margaret Alston, a leading researcher in the field of gender and agriculture in Australia, demystifies the role of women in the harsh farming environment of the nation throughout history and relates women farmers' stories in different fields of agriculture (Invisible Farmers Project (n.d.)). Moreover, Alston's work on gender and climate change and the most recent study of Australian women dairy farmers offers a glimpse into the invisibility of women in the face of the MDB plan. It demonstrates how the MDB plan forced a restructure of the gender division of labour in the farms across the MDB which involved women in a gruelling fight for the survival of the family business and in some cases the family itself.

Whatever tasks were undertaken by men and women in the farm up to the introduction of the MDB plan were fairly clearly mapped out. Men would plough the fields, deal with irrigation issues and oversee farm labour, while women on top of their unpaid productive caring and family work were looking after animals, processing dairy and agricultural products, including on some farms, responsible for all the milking. In the highly patriarchal agricultural organisation of farming, many of the farming activities undertaken by women were dissociated from the classification of 'farming', while any and all work undertaken by men were considered to be productive farming activity moreover the latte more essential, pivotal than the former. In the post-MDB plan, an uncompromising radical restructuring of farming required an equally radical recalibration of the gender division of labour on farms in the MDB irrespective of the principal farming activity undertaken on each individual farm. In the post-MDB plan environment, over 30% of agricultural labour became unemployed as the farmers were no longer financially able to run their farms depending

on a contract agricultural labour force. In this difficult financial climate, while the working hours of men extended, those of women multiplied exponentially as their capacity to multitask was pushed to the limits. The augmentation of the extent and nature of their labour on the farm had to be taken on in tandem with their unpaid caring and physical reproductive role in the family. If men had assisted with family work in the past, for most farmers this was no longer the case, and as such women had to manage alone which meant a further increase in their workload. Added to this most farms operate at a distance from towns; the isolation offers no support for women farmers with respect to using childcare, and in many cases, there was simply no spare cash to do so. Women had to simply step up to the plate no matter what the personal or emotional cost might be. If their work had been considered undervalued and invisible in the past, the toll on women especially in terms of doubling their workloads was never in consideration. In the contest between the environment and farming, a gender agenda was nowhere in sight. To add to women's responsibilities, many found themselves having to take on paid work off the farm in order to put food on the table while the farm's earnings went to paying exorbitant interest rates on loans acquired in the drought years (Alston et al. 2018: 5–6; Mignaquy 2014: 11–12). In a scenario in which there was little consideration for male farmers, there would be none at all for female farmers whose invisibility seemed to be further consolidated in the restructures required to attempt to maintain the viability of family-owned farms. Within the basin it seems the restructuring resulted in the feminisation of climate change response in which the fall out fell squarely on women's shoulders. But the restructuring in the basin had women questioning their lack of status within the farming community. As one female farmer in the Alston et al. study stated:

> So, I think it is hard for women to see themselves as an equal because we're seen as the wife, raising kids, washing clothes, and calf rearing, that's the normal traditional woman's job on the farm…. Oh yeah, and hosing out the [dairy] yard, that's the other girl job. Stage 3, C1 5. (Alston et al. 2018: 7)

> I used to introduce myself, "I'm a dairy farmer's wife," and so [I say to myself], "No, you're a full-time professional dairy farmer, that's what you should say you are, and when you meet men you shake their hand and say hello". I shouldn't have to do all that stuff really, I should be treated as equal but it is hard in probably a male dominated industry to step up, but there are some pretty good women who I talk to. Stage 2 C1 KI 7. (Alston et al. 2018: 8)

Moreover, there was no synchronicity between the restructuring of the gender division of labour from one farming enterprise to another. Some women assumed a full-time role managing the farm, while others increased the hands on labouring work and skilled jobs around the farm while their husbands focused on the intricacies of water management refinancing and achieving a balance between family and hired labour. Either way women's invisibility increased rather than decreased. In some cases women were holding the farms' finances together managing a failing enterprise, working off farm and dealing with their husband's depression and in some cases the sole manager and parent in the wake of a husband's suicide. The long drought and the fight for water in its wake were far too much for women farmers who were faced with

an uphill battle to maintain the family and the well-being of the family farm. This was exacerbated by the fact that women were not recognised as having any financial stake in it, not in the land, as inheritance beneficiaries, which continues to be patri-lineal, as in laws they were simply 'outlaws'; with no stake at all and as such, many would simply vote with their feet:

> Family breakdown that occurs because of the economic pressures, and wives will be more willing usually to cut losses and walk away than men will from farms … But on the whole it's the women that will say, 'I can't take this anymore, I just don't want to do it anymore', and its often because they're seeing the impact on their children … so mothers are more likely to be the ones who will say, "This is just not acceptable", and want out from farms. And, you can see immediately the problem when one wants out and one wants in you've got a breakup of a marriage and then you've got the breakup of the farm, and then you've got all sorts of huge issues there. Stage 2 C1 KI 4. (Alston et al. 2018:11)

Thus, a radical shift in the gender division of labour, workload and responsibilities brought about by the MDB plan did not lead to a change in women's status in agriculture or legal access to or control over resources. To the contrary the increased labour was designated as part of the 'family duties' associated with women.

The focus on climate change and the river health of the MDB was the endgame and one that the rural community was expected to support and engage with, whatever the cost. While the political arguments continue with respect to the success or failure of the plan, one thing is certain nothing will be what it once was for the rural community of the MDB who were never really on the agenda at all. For women it was more of the same, invisibility while supporting the lion's share of the stresses and strains of agricultural life.

Productive Partnerships in Agriculture Project [PPAP] and the Maura Savings Group of Oria Village: Bougainville

The second example that this paper focuses on is diametrically opposed to the previous one. This was a scenario in which there was a clear and stated commitment to the recognition of women farmers in the belief that in the post-conflict situation, it would be easy to reconfigure gender relations in favour of greater gender equality. Moreover, they were projects in which Australian aid had a partial or principal role in funding and project orientation. Suffice it to say they are also cited within the recent review comment as successful projects funded by the Australian government (DFAT 2018). The question is what constitutes success?

Papua New Guinea is certainly a difficult environment in which to implement projects and programs that will focus on strengthening women's role and decision-making input in agriculture both regionally and nationally. In PNG there is a strict gender division of labour whereby women are responsible for all subsistence farming, domestic and local food production and the raising of small animals such as chickens and pigs. While men dominate and control cash crop agriculture such as cocoa, coffee and palm oil, although women do play an important role and have

significant inputs into mainstream farming endeavours, men overwhelmingly control the decision-making and marketing of cash crop production (Cahn and Liu 2008: 134; Mikhailovich et al. 2016: 2). Within households the control over earned income maybe gender specific, but whether or not the woman or man has control over income depends on the cultural mores of the community in question. Nevertheless, Byford and Guanara found that women's familial and community inputs and responsibilities were given lower status by virtue of being female as opposed to those of men who were considered to be 'de jure heads of household' and worthy of greater consideration and higher remuneration merely by virtue of being male (Byford and Guanara 2002: 30). In the face of an imbued gender inequality, projects focusing on raising gender awareness or acknowledging the central role of women in agriculture faced opposition and challenge in the communities within which they were aimed.

Idealistic projects focusing on 'new beginnings' and a belief in the face of destruction and reconstruction of agriculture in a post conflict and post disaster were overly optimistic and ambitious. In the early 2000s, the neglect of agriculture, apart from that of household food production, was evident. Energies were focussed on reviving the cocoa industry as a pivotal crop in the process of rebuilding the agricultural cash cropping economy, which by 2006 represented an almost impossible task as neglect had led to the proliferation of cocoa pod borer (CPB) disease which destroyed 80% of cocoa production with farmers facing a complete restructure and regeneration of the acreage given over to cocoa farming (World Bank 2014). Some described it as virtually year zero task requiring planting of new saplings to restore farming livelihoods. For many agencies this offered a unique opportunity to engender programs targeting agriculture in the region and reinforcing gender awareness and the centrality of women to farming with the amelioration of gender inequality as one of the outcomes (Keenan 2013).

In PNG one of the principal post-conflict reconstruction projects to reactivate cocoa farming with women taking an equal role was the Productive Partnerships in Agriculture Project (PPAP) with initial funding coming from the government of PNG and the World Bank. Other partners in the process over the following years were the EU and International Partners for Development and World Vision. Australia in cooperation with the World Bank launched the Pacific Women Shaping Pacific Development initiative through which women were targeted directly through Australia Direct Aid program which offers small grants to community-based initiatives. In this case to 'women's groups, funding water and sanitation systems, community resource centres, classrooms, arts, crafts and tailoring skills' (DFAT 2018: 46) These initiatives have been led by women of the community and with a certain belief that community leadership roles offer a springboard for women to enter the PNG politics and other leadership.

In the Productive Partnerships in Agriculture Project, early expectations that the role of women might be strengthened through their inclusion were in many ways misplaced. A focus on lead or 'model' farmers meant that it was predominantly men that would be the major beneficiaries of the program in both the short and long term. In spite of the recognition that women carry out 70% of the work in agriculture, the PPAP inevitably ran into the gender ghetto of business as usual. Women already

invested in cocoa farming would clearly benefit from the program, but those who were not would receive little or no investment either with respect to training or resources which would have expanded their agricultural initiatives into cash cropping which was and continues to be a male domain. With an overwhelmingly male contingent of 'lead' or 'model' farmers, it would not go amiss that cash cropping would for the foreseeable future remain in the hands of men.

Within the reconstruction of cocoa farming in the initial stages, there was a need to generate hybrid seedlings to be used in the replantation of cocoa farming acreages. This required a cloning and grafting of cocoa budding sticks resistant to the CPB disease which had infested cocoa farms a decade earlier. While for the most part it was men that managed the seedling nurseries and women who undertook the cloning and planting process so fundamental to the future productivity of the industry. In this farming activity, far more women are centrally engaged in the process with some setting up their own nurseries through the small grants schemes targeted at women. But at the end of the day, the amount of money earned from selling the hybrid seedlings to that earned from cocoa production itself is at the lower end of the income market. In the process the grafting of nurturing of cocoa seedlings has now become a gendered activity reinforcing rather than challenging the gender division of labour in the cocoa-producing industry. Thus, women refocus their farming activities into other areas, strengthening and expanding their horticultural skills whereby a traditional gender division of labour is reassumed.

Another example of program funding that directly targeted women was support for micro-finance projects, the fallback position of gender-focused aid projects. It meets the short-term needs of women with income generation in a crisis and in periods of reconstruction. It is in these periods that the burden of family subsistence and survival falls on the shoulders of women. As the principal food producers, they are required to redouble their efforts with respect to increasing food production for the household and the local market. While farms and acreage are under regenerative and replanting activities, families cannot wait 2 years until the first harvest comes in and is sold. Women not only seek to redouble their efforts in the area of food production and animal husbandry but also in seeking 'off-farm' employment or income generation. In Papua New Guinea in the post-conflict period, there was little of the former for either women or men and as such other means to support the family needed to be pursued.

One initiative in Bougainville was the Maura Savings Group of Oria Village which emerged from the women of the community and sponsored by World Vision as one of the projects established with a small grant arising from the Australian Direct Aid program (DFAT 2018). The aim of the women-only savings and loans group was to create a sound financial environment for them to invest in their own income-generating activities and use part of the profits to save for materials to rebuild their homes, pay school fees or have running water. The group also had a social fund which helped support women members facing temporary hardship or illness. Members contribute a set amount per week at the meeting and can apply for loans from their savings at 10% interest which they are required, under the rules, to pay back in 3 months (World Vision 2017). This offered women a means of

applying their skills to income generation and savings investment that would directly benefit the family whole retaining control over the profits from their activities. An interesting component to the savings group was the financial literacy training they received from the program. This would have other applications within the cocoa family farm. Women were not in many cases simply micromanaging their own income-generating activities, but when cocoa farming began to take off and income flows from cash cropping boosted family income, women would be the ones responsible for taking over the accounting and management of the family farm (Cahn and Liu 2008: 141–142).

In both examples cited here while the programs claimed to have gender equality outcomes in terms of ameliorating women's disadvantages in both the family and the community, the outcomes do not offer any significant challenge to gender inequalities in PNG society or constitute, as claimed by one agency, life changing support. One might argue that claims made with respect to the aforementioned programs are open to interpretation. The consistent reference to women cocoa farmers is correct in so much as they undertake work on cocoa planting and production on their family farms which for the most part are 'owned and run' by their husbands.

Similar to Australian women farmers, in PNG women are also the invisible farmers in cocoa production because it is men—for the most part—in the PPAP that are labelled the lead or model farmers as they own and control the resources which underpin cash crop agriculture. Thus, the inputs from the program with respect to resources and training inevitably fall to men. Moreover, in the reports and articles which consider the implementation of the PPAP, there were concerns expressed by elders that the younger generation need training in the requisite skills and by inference that would focus on training young men rather than women to carry on the cash crop farming. Bearing in mind that not only do women work in cocoa production and harvesting but they are also the primary food producers for household consumption as well as sale in the local markets. These activities however pivotal are associated with informal sector or subsistence activities which were not the focus of any of the projects and programs cited here. As Cahn and Liu assert, in consideration of the clear gender division of labour in the different farming sectors, both formal and informal women's agricultural endeavours are frequently overlooked or given little consideration (Cahn and Liu 2008: 134). In the broader remit of programs such as the PPAP which focus on male-dominated cocoa farming, women have little visibility or status as farmers. The moral of the story is that if you focus on cash crop production which is under male control without consideration of food production on which the commercial sector depends, then women will be allocated fewer resources and training opportunities than men.

The savings group initiatives funded through the Australian NGO Cooperation Program and supported by World Vision specifically targeted women and certainly satisfied a need identified by women to manage their own affairs and invest their money, through the savings group, in future projects. As the leader of the savings group in Oria Village stated, they wanted a woman-only group so that women could make decisions with respect to their own money and financial endeavours without men being 'too bossy' (World Vision 2017). Bearing in mind that women may work

across several sectors outside of cocoa farming, the most important dimension of the scheme was the training in financial literacy. Given the regeneration of family cocoa farming, their predominance in food production and small retail endeavours, the financial management of all these activities as well as saving was important, not least to the rationalisation of women's work obligations and the increasing burdens placed on women seeking to augment the family income while at the same time bearing all of the responsibility for productive unpaid domestic work in the home.

Illustrative of the possible outcomes from both programs in PNG, which were in many ways interlinked, were the benefits to the family of a 'lead' male cocoa farmer from the PPAP highlighted in an article by World Vision. Underwritten in the case study was the cocoa farming for this farmer was a 'family affair' where the wife and children assisted in the farming activities carried out on 'his' land and 'his' nurseries. His wife was a member of the savings group and would keep the financial records of the cocoa farm while operating a small trade store in the village. Thus, the family income through all of these activities was increased. In this scenario the woman still remains the invisible farmer and is defined as a producer and trader in activities outside of cocoa farming. All of these factors are understandable within the PNG culture whereby men exercise power over resources, consider themselves to be superior to women and dominate all decision-making bodies in the public sector. Within a cultural environment in which government efforts to ameliorate gender equality have for the most part been weak and under resourced, there was certainly a need to have project outcomes that focused on gender inequality. Without question the World Bank initiatives at the outset of the PPAP were highly optimistic believing that it would strengthen the role of women in the cocoa industry. In the end it seems to have shored up male advantage albeit making some inroads to counter female disadvantage. A World Vision video on the project offers a highly masculinist view of the project with hardly a woman in sight and none playing a foremost role. It would seem that women irrespective of the fact that they do the majority of agricultural work are still not recognised as the main players in reconstruction at least with respect to visibility, acknowledgement and power. The invisible female farmer once again, at least publicly, becomes the 'bit player' in the reconstruction of the cash cropping agriculture.

When Gender Slips off the Agenda

In a world in which climate change is already presenting considerable challenges for agricultural development and environmental protection, the 'big picture' agendas will increasingly depend on local solutions, whether we consider the environmentally centred Murray Basin solution in which the complexities of farming in a challenging environment were not only underestimated but lacked meaningful local and national support. PNG-funded programs to reconstruct one of the principal cash crops, cocoa, again focused more on agricultural outcomes for both the national and local economy with a circumscribed notion of the status and importance of the

major players. Within that scenario men rather than women are identified as 'lead' subjects at the expense of women who are pivotal to successful outcomes in the whole process. In neither the Australian nor the PNG case studies was a gender inclusive perspective orientating the policy or its implementation. In the early objectives of the original PPAP program, there were strong expectations of it having meaningful impact on the gender balance within the agricultural sector, with women's contribution and active engagement being not only recognised but expanded and improved upon, especially in the field of decision-making both in the family and in public decision-making forums. In reality, the gender-specific programs such as the savings group reinforced women's entrepreneurial activities and responsibilities outside of cocoa farming. In this process women's farming and agricultural activities are occulted within the savings group wherein the priority was on women as financial managers and effective savers. Thus the objective of this gender-specific program melded into one that reinforced rather than challenged gender stereotypes underpinning PNG culture by 'empowering local women with skills and knowledge to save more effectively' (DFAT 2018: 62) which begs the question why and to what purpose. Thus, the PPAP project evolved and with a deft sleight of hand gender went from being mainstreamed to a footnote.

In any claims for focus on gender equality and work towards meaningful outcomes that in some way alter the status quo, gender must from the outset be the principal focus of the plan. Moreover, there should be clearly defined gender-specific implementation strategies appropriate to the cultural context of the socio-economic environment targeted for strategic support. Most especially the nature of gender relations and its impact on the division of labour and activity status in agriculture is basic knowledge that is needed to underpin any plans for development and change. Gender knowledges are fundamental to understanding local cultural practice in questions of inheritance, land rights and economic decision-making which configure in long-term planning and strategies for change to improve the lives of men and women in the face of climate change and sustainable agricultural development (Corcoran-Nantes and Roy 2017; Dankelman 2002).

In both Australia and PNG, women are not the principal landholders, and most will not inherit land rights irrespective of their input into the family farming business while sustaining other income-generating activity outside of it which they are able to control. It is this conundrum that besets the future of farming worldwide. Women, excluded from any form of ownership of the resources on which they depend to produce food and maintain a viable livelihood, will in times of crisis will vote with their feet. The threat to food security does not lie exclusively on our response to climate change but to the clear support and acknowledgement of women as the principal food producers globally and important famers in their own right. Meeting the goals of SDG5 at home or abroad needs a clear commitment to permanent change in the way women in agriculture are viewed, treated and most of all supported. Any project or plan to do so must not only underwrite meaningful evidence-based, quantifiable outcomes but also practically subscribe to a belief that such change is possible and fundamentally necessary.

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Chapter 16
Enhancing Agency by Listening and Hearing to Enhance Capacity of the Most Marginalised in New Zealand: Our Respective Journeys

Louise Sinden-Carroll and Aroha Henry

Abstract In this chapter Louise details her engagement in NZ prisons, and in a linked vignette, Aroha details her own journey to enhance the capabilities of those suffering hearing loss. Aroha gives her story of enhancing agency by listening and hearing (https://archive.org/details/IFHOHPaperToLink_20181003).

Together the authors offer data combined with reflection that shows the underlying social dynamics that enable marginalisation to flourish. They identify: multiple levels of marginalisation experienced by a New Zealand woman of Maori descent and of a New Zealand woman of European descent.

Both the authors are living with the impact of sensory hearing loss, e.g. gender, cultural and disability and health-care access. We discuss how in-depth marginalisation caused by barriers to health-care access enabling hearing loss identification narrows the applicability of the Martha Nussbaum's human capabilities approach. We also discuss how the application of the United Nations Convention on the Rights of Persons with Disabilities (CRPD) and the United Nations Convention on the Elimination of all Forms of Discrimination Against Women (CEDAW) upholds the implementation of rehabilitation through technology thereby overcoming gender, cultural and disability caused marginalisation of Maori and European women living in New Zealand. By applying both CEDAW and the CRPD, the wider application of the Martha Nussbaum human capabilities approach then becomes possible.

Keywords Prisons · Hearing loss · New Zealand · Human capabilities approach · Social contract

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Capacity Building by Louise to Enhance Human Capabilities and Societal Reintegration of Prisoners with Hearing Loss in New Zealand Prisons: Implications for Social Justice

By using participatory action research, we can advance understanding on the need to enhance the capabilities of prisoners with hearing loss and the capacity of prison staff to understand the needs and support the capability growth of such prisoners. New Zealand prison officers work in a situation where 1:3 prisoners have hearing loss and endure presenting compensatory behaviours such as anger, frustration and depression. Prisoners with disabilities are viewed by some as society's most powerless and vulnerable, yet they can elicit negative judgments of shame and disgust from the more powerful, who are those most able to initiate change so desperately needed by prisoners to change their life paths from recidivism to successful reintegration. Nussbaum's list of central human capabilities outlines substantial freedoms that every person can apply, which prisoners with hearing loss need to gain equity. When considering the practical application of these capabilities, we can hypothesize they will offer prisoners the range of rights defined by the Universal Declaration of Human Rights 1948 and the Convention on the Rights of Persons with Disabilities (CRPD). By applying the capabilities approach through the CRPD, the power of vulnerable increases, enabling all in society to originate from the same level, and thus the application of the equally balanced social contract becomes possible. From that the Aristotelian approach can apply, whereby it is the job of a good political arrangement to provide each and every person with what they need to become capable of living rich and flourishing human lives.

Background

Bowers (1982) offered a stark face to the distressing issue of hearing loss in New Zealand prisoners when reporting on research done through hearing screening and the gathering of hearing health histories of 100 European male and 100 Maori male prisoners. From her research emerged evidence-based policy recommendations that would identify and support prisoners with hearing loss to achieve rehabilitation. From this catalyst, research was done in 2014 to determine if access and equity is now extended to marginalised groups, with the needs of one marginalised group being considered, namely, New Zealand prisoners with hearing loss. In the New Zealand prison population, indications are that prisoners have a significantly increased rate of hearing loss in comparison to that of the general population. This raises the question of what happens when a brain is starved of adequate auditory input and stimulation. "It is widely assumed that the brain shapes our conscious experiences… [and conversely] [i]t is also known that the brain is in turn shaped by experience" (McIntyre-Mills 2010). Accordingly, "our thoughts as well as our perceptions are integrally dependent on our sense organs…" (Sen 2009).

Research Approach

One hundred male prisoners on remand at Mt Eden Corrections Facility (MECF), managed by Serco private prisons service in New Zealand, participated in the research by volunteering through self-referral to be hearing screened and interviewed about their hearing health. This article is divided into four sections: the first offers context by providing important background information; the second is situated prior to 2014 research; the third section outlines the 2014 Serco Mt Eden Corrections Facility (MECF) research results; and in the fourth section, policy recommendations are made on how we can address the insidious issue of hearing loss in the New Zealand prison population.

Given this high degree of brain interdependence, what happens to a person when a sensory faculty such as hearing fails to function as expected or indeed required yet the hearing loss remains unrecognised?

When a hearing loss is unidentified, rehabilitative compensatory communication support methods such as cochlear implants and hearing aids with or without remote microphone or FM capacity and/or access to sign language are denied.

Paediatric hearing loss is believed to be "more than a disability or a medical diagnosis, because… [p]rofound childhood deafness is …a cultural phenomenon in which social, emotional, linguistic, and intellectual patterns and problems are inextricably bound together". Sacks (1990) and Dahl (2002) report that developmental problems can result from early or congenital hearing loss.

This underscores the essential need for and value of the New Zealand Newborn Hearing Screening Programme which was established and rolled out nationwide in 2010/2011.

Acquired hearing loss with adult onset is reported to have "a pervasive negative effect on interactive and verbal communication and this factor greatly influences how a person is perceived, interpreted and defined by others".

Dahl (2002) reported in a study done in British Columbia that Corrections staff were five times more likely to perceive inmate behavioural or personality problems as deviant (or abnormal) than to perceive them as indicative of a hearing problem and 55% of the inmates with partial hearing loss expressed concern about being misjudged or mislabeled.

In the New Zealand prison population, prisoners will present with unrecognised or non-rehabilitated paediatric and adult-onset hearing loss, and both groups will need active hearing loss identification and support to successfully communicate and integrate firstly into the New Zealand prison population and to participate in any rehabilitation programme whilst in prison and then at release back into their communities.

The Royal National Institute for the Deaf/Action on Hearing Loss (AOHL) and the Deafness Forum of Australia (DFA) both state that some type of hearing loss occurs at the rate of 1:6 in the general population as does the National Foundation for the Deaf (NFD) state in the "Listen Hear! New Zealand" 2016 report. We also know that prisoners self-reported hearing loss of some type at a rate of 1:3 (New Zealand Prisoner Health Research 2005).

If we use the AOHL, DFA and NFD statistics of 1:6, over 880,000 New Zealanders will have some type of hearing loss and prefer to use verbal communication. Data from the New Zealand household or census data, which is a 1:10 conservative statistic indicates that over 450,000 New Zealanders have some type of hearing loss which indicates that the hard of hearing are New Zealand's largest sensory disability group and the second largest national disability group, after the muscular-skeletal disabilities such as arthritis.

There are two distinct cultures in the hearing loss sector nationally and globally, one being those who view themselves culturally as members of the deaf community and their preferred or primary form of communication. Nationally they use New Zealand Sign Language (NZSL). Deaf Aotearoa New Zealand advises there are 11,000 people who use NZSL as a primary communication tool.

The other group, comprising by far the greatest number of New Zealanders with hearing loss, are those whose hearing has deteriorated after they have developed verbal language skills and view themselves as hard of hearing, with their preferred or primary form of communication being verbal language.

Pre-2014

When considering the statistics of hearing loss globally, the World Health Organisation (WHO) states that "half of all cases of hearing loss are avoidable through primary prevention" (http://www.who.int/mediacentre/factsheets/fs300/en/).

Research has shown that there was no government response to recommendations from Bowers (1981) following her findings that 100% of Maori prisoner research subjects and 84% of European research subjects were found to have abnormal ears and/or hearing or a history of ear disease.

Though Bower's results were viewed as contentious at the time, they clearly indicated there was a significant issue of previous or ongoing ear disease and hearing loss in the New Zealand prison population. In 2005 hearing loss was the most prevalent prisoner self-reported sensory disability (New Zealand Prisoners Health Survey 2005). Though hearing screening was not done to identify this, the prison population verbally self-reported that hearing loss occurred at the rate of 1:3 (over 33%). These findings are slightly lower but reasonably in line with US hearing screening research done on prison populations where hearing loss occurrence is reported at 36–48%.

Of the 1:3, 14.2% of prisoners reported they had difficulty hearing someone in a quiet room; 24% had difficulty hearing someone on the other side of a room; and 31.2% experienced difficulty when having a group conversation.

It is also reported in the 2005 Survey that prisoner access to medical care is haphazard, which supports the notion that referrals to hearing loss rehabilitation services will be haphazard too. Note that ear disease or the history of it was not surveyed, meaning that a comparison to Bowers' findings is not possible.

2014 Research

Initially research discussions were held with the New Zealand Department of Corrections (Corrections), but these ceased when Corrections chose to use non-standardised equipment to do prisoner hearing screening. The equipment Corrections used was reputed as giving unreliable results.

However, shortly thereafter discussions commenced with Serco Private Prison service and in 2014, 100 self-selected male prisoners at Serco Mt Eden Corrections Facility (MECF) were given pure tone audiometry hearing tests. These were carried out by three qualified hearing therapists employed by Life Unlimited Hearing Services who are funded by the New Zealand Ministry of Health. Life Unlimited provides an adult aural rehabilitation service that includes screening audiometry. The therapists took their standardised equipment into the prison 1 day a week for a period of 3 months.

The results of the hearing screening tests were categorised as no further action; monitoring in 12 months; referral to audiologist; referral to general practitioner; and referral to ORL/ENT specialist by general practitioner. As can be seen in Table 16.1, from the group of 100 prisoners who underwent the pure tone audiometry hearing screening, 33 require audiologist referral; 4 require general practitioner referral; and 15 require ENT/ORL specialist referral by their general practitioner, giving a total of 52 who require further intervention.

In Table 16.2, hearing loss in 100 prisoners from three population groups are defined, one being the predominant ethnic groups found in the general population in

Table 16.1 Prisoner hearing screening results

Result category	Number of prisoners
No further action	22%
Monitoring in 12 months	26%
Referral to audiologist	33%
Referral to general practitioner	4%
Referral to ORL/ENT specialist by general practitioner	15%
Total	**100%**

Table 16.2 General population vs. prison population statistics—prisoner ethnicities

Ethnicity	% of general population 2013	% of prison population 2010	Ethnicity % of 52 prisoners requiring further intervention
Asian	10.9%	3.6%	4%
European	67%	33.6%	37%
Maori	14%	50.9%	42%
Pacific people	7%	11.5%	15%
Others	1.1%	0.4%	2%
Total	100%	100%	100%

2013; the next being the proportion of the same ethnic groupings represented in the prison population in 2010; and the third being the proportions of the ethnic groups of the 52% of prisoners found to have hearing loss in the Serco 2014 Hearing Loss Identification study. As can be seen in Table 16.2, in 2013, 10.9% of the general population were Asian; 67% were of European descent and 14% of Maori; 7% were Pacific people; and 1.1% were of unidentified ethnicity.

In 2010, 3.6% of the prison population were Asian; 33.6% were of European descent and 50.9% were Maori; 11.5% were Pacific people; and 0.4% were of unidentified ethnicity. Thus, in comparison to the rates of Maori and Pacific people general population ethnicity statistics, Maori and Pacific people were significantly over-represented in prison populations.

In 2014 of the 100 prisoners who self-referred for hearing testing in the MECF Prisoner Hearing Loss Identification Project, 3% were Asian; 39% were of European descent and another 39% were of Maori; 15% were Pacific people; and others were 4%.Of the 100 prisoners who self-referred for hearing testing, 52 prisoners were identified as requiring further intervention.

Of the 52 prisoners, 4% were Asian; 37% were European whilst 42% were Maori; 15% were Pacific people; and others comprised 2%. Again, in this small group who self-referred for hearing testing, both Maori and Pacific people were significantly over-represented.

In conclusion to this section, it is important to emphasise that these results are indicative of a serious issue that requires further, in-depth investigations, which are outlined in the Recommendations section below.

Mixed Method Approach

During this research, various kinds of auto-ethnographic and ethnographic processes, in conjunction with participatory action research elements, were applied by the researchers. These included:

- Lived experience of hearing loss and critical analysis of participatory research and disability theory
- Analysis on whether the policy recommendations from Bowers (1982) had been applied to address hearing loss-induced prisoner marginalisation
- Dialogue and correspondence with the State Corrections service on the need to introduce hearing screening of prisoners
- Discourse and project design and delivery with the government-contracted private prison service Serco
- Systems advocacy correspondence and meetings with the various Ministers of the Crown responsible for disability and Corrections portfolios

Participatory research elements included:

- The objective hearing loss screening done by the hearing therapists from Life Unlimited using standardized hearing testing equipment

- Recruiting a self-selected group of 100 male prisoners from a representative population
- Pure tone audiometry and brief subjective hearing histories were recorded by non-prison service hearing therapists using standardized equipment

For the duration of this project, there were crossing paths of objective and subjective participatory research which added in elements of complexity and pragmatism.

Results

Of the 52 prisoners who were confirmed by testing as needing further audiological or clinical services, 4% were Asian; 37% were European whilst 42% were Maori; 15% were Pacific people; and others comprised 2%. In this small group who self-referred for hearing screening, both Maori and Pacific people were significantly over-represented.

Though not conclusive due to the small number of prisoners being tested, these results clearly indicate that hearing loss needs to be considered and actively ruled out as an issue when a prisoner's rehabilitation and reintegration programme is being developed.

There is also a need to do hearing screening and record hearing health histories of a larger cohort of New Zealand prisoners—500 prisoners—to gain conclusive data on the occurrence of hearing loss in the New Zealand prison population.

It was evident that though the newborn hearing screening recommendations from Bower had been implemented, the others that specifically related to prisoners had not been.

Of the 100 prisoners who self-referred for testing, 52 required further assessment from audiological clinical services.

Prisoners with hearing loss in New Zealand prisoners remain multiply marginalised as their hearing loss is not routinely identified through screening at admission.

They are geographically and socially isolated through incarceration, and they are democratically marginalised because a 2010 amendment to the Electoral Act bars prisoners sentenced and incarcerated since 2010 from voting in the general elections.

Recommendations

Though the pool of prisoners being tested was small at 100 and it was a self-selecting sample, these results imply that the number of prisoners with hearing loss in New Zealand prisons has not decreased since 2005 and that there is a significant and serious need to urgently implement a range of recommendations to address

hearing loss in prisoner populations across all Corrections and Serco facilities. These include:

- Ensuring Serco and Corrections staff, who know how to communicate using NZSL, are rostered onto work with deaf prisoners who use it to communicate. There is a need to ensure that prisoners who have hearing loss and do not use NZSL to communicate are able to understand the judicial process by providing professional captioning services for court and parole board hearings. Until this is done, it is reasonable to believe, given the size of the population with hearing loss, there are ongoing significant human rights breaches occurring on a daily basis in the New Zealand judicial system.
- Serco, Corrections and the Ministry of Health Disability Support Services policy staff need to collaborate to develop a hearing loss rehabilitation fund that Corrections can use to purchase hearing testing and hearing rehabilitation services for prisoners.
- Serco and Corrections staff must learn and recognise how a person who has hearing loss will present and behave and where they can go for assistance within the prison system. There is a real need to develop a DVD resource for Corrections front-line staff to see in their training forums, which will offer standardised information to all staff nationwide. It is recommended that a hearing screening project of a cohort of 500 prisoners, using trained independent hearing screeners who are using standardised and approved hearing testing equipment, is done.

2016 Update

In December 2016 Corrections health staff met and collaborated with appropriate health and disability advisors with the aim of developing a pilot prisoner hearing screening programme in New Zealand.

Research Conclusions

This was a unique participatory research collaboration of many parties including a lead researcher who has hearing loss; prisoners who did and did not have hearing loss; hearing health service screeners and management; state and private senior prison management; university professors from universities in New Zealand and Australia; and members of the New Zealand Parliament.

There was space and a need for all parties who participated in this project and for all of the different types of research methodology they brought to the table which fitted nicely under the guise of ethnographic participatory research.

It was a successful venture in New Zealand as positive change is happening for prisoners with hearing loss.

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Chapter 17
Reserved Seats for Women in Rural Local Government: Achieving a Level Playing Field

Shajeda Aktar and Janet McIntyre-Mills

Abstract The government of Bangladesh introduced direct election in the quota seats for women through the Local Government (Second Amendment) Act 1997. The empirical studies on the performances of the elected women representatives, however, show mix evidences of women representatives' success and empowerment. Intuitively, the literature commonly scrutinised the role performances of the elected women representatives in the LGIs, but there is no study so far to investigate whether there were situations that beget self-selection in contesting (and more importantly, in self-exclusion from contesting) election. This paper discusses the issues women representatives faced in contesting election in the local government institutions in Bangladesh. Empirical evidence shows women members were to struggle in exercising agency and mobilising resources while making a decision to contest election, during election campaign as well as functioning in the LGIs once elected.

Keywords Women empowerment · Reserved seats · Local government · Direct election

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Introduction

Underrepresentation of women in political office is a much talked of phenomenon worldwide. It has implications for the rights of women to access land and impacts their ability to engage in farming land for their families.

Research has shown that women are marginalised and often excluded from politics irrespective of their levels of education, income, culture and socioreligious norms (IDEA 2013; Usu 2010; Brody 2009; Krook 2007; Dahlerup 2006; Chowdhury 1994a, b, c). Although increased women's participation is now recognised worldwide, women's representation in political office across the world is still lower than that of men. Even after the Beijing Platform for Action 1995 endorsed by 189 participating countries, improvement in this point is still far from satisfactory. Women's representation in parliamentary bodies is still only 20.4%across the world (International IDEA 2013). The increasing participation of women is essential in a democratic society in order to ensure representation of all social groups, ensuring citizen's rights and promoting the widespread development of human well-being. Democratic rule cannot be meaningful in a society which keeps a large section under-represented and undervoiced (Chowdhury 2008; Sun 2004; Halder 2004; Haque 2000, 2003; UNDP 1997; UN 1992). In democratic society no discrimination should be considered acceptable irrespective of gender, race, religion or ethnicity. Political equality is a prerequisite in democracy: women should be equal citizens with men and, therefore, should enjoy equal share in the political decision-making process (Tremblay 2007; Lindberg 2004). Democracy stands for freedom of voices and expression, freedom of choices, human rights and equal opportunity. However, studies show that women's representation in political office, high-salaried jobs, parliaments and ministerial positions are far from proportionate in terms of equity in the real world. The Beijing Declaration, therefore, aimed to address these inequities and recommended quotas reserved for under-represented women across the world (Usu 2010; Sawer et al. 2006; Aktar 2006b; Dahlerup 2006; Haque 2003; UN 1996).

Introduction of gender quota is advocated as the fast track to trigger women's representation at various levels of government and to bring women in the mainstream political arena (Usu 2010; Tripp and Kang 2008; Dahlerup 2006; Krook 2005; Dahlerup and Freidenvall 2005). As Dahlerup (2006) explained, the imposition of quotas as a form of affirmative action for the disadvantaged is a common step taken by the authorities to promote involvement of a particular section of the population in the decision-making process. Currently 113 countries across the world had introduced women's quotas in their parliaments, compared to only 4 countries in 1985 (International IDEA 2013).

At the same time, women activists and international organisations view local government as the entry point for pioneering gender interests because local institutions are smaller and closer and are readily accessible to the local community. Disempowered sections of society (e.g. women) are, therefore, more likely to become engaged in issues that directly affect their lives—for example, water and

sewerage management, waste disposal, children's education and local infrastructure (Mukhopadhyay 2005; Vijayalakhmi 2002; Mukhopadhyay and Meer 2004; Goetz 2004). This is particularly important for a country like Bangladesh.

In Bangladesh, although women occupy high positions as exemplified in the present prime minister, the opposition leader in the parliament, the speaker and some key ministers of the government, this differs from the general picture of overall women's political participation and empowerment. Since the nation's independence in 1971, women have never occupied more than 10% of positions in the cabinet, parliament or government employment (Firoj 2007; Aktar 2006a; Das 2005). Male domination is visible everywhere in this patriarchal society, and women are traditionally confined to domestic role. Female literacy rates are below that of the men, as are their employment opportunities and income (BBS 2010).

Common problems faced by Bangladeshi women include oppression, repression, domestic violence, dowry requirements, acid throwing, rape and eve-teasing.[1] To improve women's status in society researchers, women leaders and development practitioners are, therefore, emphasising increasing women's participation in development initiatives as well as in political offices (Aktar 2006b; Rahman and Roy 2004; Ali 2003; Siddiqi 1995; Guhathakurta and Begum 1995).

As an active participant and signatory of the Beijing Platform for Action (1995), the government of Bangladesh introduced direct election in the quota seats for women through the Local Government (Second Amendment) Act 1997 (Aktar 2009; Mahtab 2007). In this Act provision was made that each local government body will be constituted with the general seats plus a number equivalent to one-third of the general seats reserved for women. Furthermore, these reserved seats will be filled through universal adult franchise known as direct election.[2] The empirical studies on the performances of the elected women representatives, however, show mix evidences of women representatives' success and empowerment. Some researchers (e.g. Nazneen and Tasneem 2010; Ali 2003; Aktar 2006a, b; Panday 2008a, b) find women representatives performing well in the LGIs, raising voice within households as well as in the decision-making process of the LGIs. But there are also many studies (e.g. Aktar 2009; Chowdhury 2009; Qadir 2004) that document women representative's failure, incapability and helplessness in performing roles in the LGIs. Women representatives were also found in fiasco with the burden

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[1] Eve-teasing is used in Bangladesh to refer to the repeated verbal harassment of girls that takes place often on the way to the girl's school/college or office.

[2] In the 1997 Local Governance Act, three units are created in each Union Parishad/Pouroshova for the women, a unit comprising three wards. A Union Parishad/Pouroshova thus has nine general wards from which nine members are elected. Besides, there is now provision of three women members to be directly elected. The Union Parishad/Pouroshova is thus reconstituted as 9 + 3 = 12 members, headed by the chairman/mayor as before. The innovation of this Act was to introduce direct adult franchise in the quota seats for women. This opened the door for women to actively take part in politics for the first time in the history of Bangladesh.

of triple role within and outside home (Aktar 2009; Qadir 2004; Ali 2003). Combined with inadequate education and knowledge as well as non-cooperation from male colleagues, women representatives succumbed to excessive dependency and interference in local governance from male guardians (Aktar 2009; Panday 2011; Rahman and Zaman 2004). Much of the hype and enthusiasm raised by the introduction of direct election in reserved seats in LGIs empowering women, thus, remain unfulfilled in the past two decades.

Intuitively, the literature commonly scrutinised the role performances of the elected women representatives in the LGIs, but there is no study so far to investigate whether there were situations that beget self-selection in contesting (and more importantly, in self-exclusion from contesting) election. Because of the prevalence of adverse sociocultural circumstances, institutional drawbacks and electoral loopholes may deter certain quarter of educated, enthusiast and pragmatic women from contesting election—which might leave the place open and filled by the second bests. The situation in such would see the reserved seats not filled by the capable and motivated frontrunners but by comparatively incapable backbenchers—a situation similar to classical economist Gresham's law: "bad money drives good money out of circulation" (cited from Samuelson 2009). The context, if exists, that secludes competent candidates from contesting election cannot warrant utmost empowerment of women in the LGIs envisaged by the introduction of direct election in reserved seats. Despite this fact, the empirical literature has failed to look at whether there were circumstances leading to discourage and self-seclusion from the more competent candidates in the decision to contest election and whether such self-seclusion has any association with the failure of women representatives performing roles in the LGIs. This is important because scrutinising merely the role performances is something like looking at the symptoms rather than the causes for the glitch of the women representatives performing roles in the local government body. But in order to harness the much hyped empowerment outcome from the provision of direct election in reserved seats, it is essential to study how the provision of direct election affects electoral participation of women and the hindrances, if any, they encounter contesting election. It is also important to investigate whether the electoral regulations were sufficient to encourage women from all strata to contest election and whether mechanisms exist to ensure a level playing field. This is necessary to ensure women's vibrant participation in local government election and eventually their empowerment in the local government bodies. In this context, the research objectives of this chapter are as follows:

- To identify sociocultural obstacles and institutional loopholes undermining women's enthusiast participation in local-level politics
- To investigate whether such setbacks lead to self-seclusion from women not contesting in election of the reserved seats for women in the LGIs
- To explore whether such obstacles contesting election, if exists, leads to inefficiency and failure empowering women in the LGIs

Rationale of the Study

Politics is integral to the existence of human civilisation, and history has shown that just as humankind cannot live without politics, so civilisation cannot progress without politics (Garner 1985). Because democracy aims to establish a pro-people government, people's political participation is essential for its success. In Lincoln's famous quote, democracy "is the government by the people, for the people, of the people" (cited in Roskin et al. 2007). Democracy and the empowerment of marginalised people, thereby, go hand in hand. But in reality, women in many developing democracies are marginalised, and even across all the major democratic governments, women are under-represented (Dahlerup 2006).

In addition, women should have the right to take part in the decision-making process that affects their lives. Studies have shown that men cannot adequately represent women as women's perspectives and interests often differ from those of men (Lister 1997; Vickers 1997; European Network of Experts 1997). Scholars (e.g. Tamerius 2010; Niven 2010; Goetz 2009; Lister 1997; Vickers 1997; Chowdhury 1994a, b, c) have pointed out that women possess different values, norms and ideas and often act differently from men. Women's participation in politics is also important from governance perspective and is a means to more effective and equitable allocation of state resources (Brody 2009; Goetz 2009; Fulton 2008; Chowdhury 1994a, b, c).

The Constitution of Bangladesh recognises equal rights for men and women. As per Articles 27, 28 and 29 of the Constitution, no discrimination against women is allowed and that steps should be taken to ensure participation of women in all spheres of life (Government of Bangladesh 2008). Considering women as a disadvantaged section of society and recognising women's roles in state functioning, the first Constitution reserved 5% of the general seats for women in the national parliament (Chowdhury 1985; Salahuddin 1995). This quota was later increased to 10% in 1979 and 15% in 2011. Women representatives in these seats, however, are nominated by the parliament.

Because of women's strong awareness of local development issues, scholars and development activists strongly advocate for their increased participation in local-level governance. Political organisations and parties like the British Conservative Party also recognise women's particular ability to perform in local government institutions. In its handbook it mentions:

> women are extremely well equipped for local government. They have a vested interest in, and immediate knowledge of the schools, services, housing, care of children, and the environment, which are the responsibilities of the local government. (cited in Phillips 1998: 112)

Women can also use their household and community work experiences in the local government system. For example, Brody (2009: 38) pointed out that:

> citizen-focused consultations are viewed as a means for women to express their own needs and to facilitate changes that will benefit whole communities, because their roles and responsibilities within the household mean they are primary users of sanitation, solid waste disposal and water services, while their caring roles give them more vested interests than men in good health and educational provision.

In India, Basu (2003) demonstrated that women placed greater emphasis on the construction of wells, playgrounds, roads, public toilets and non-polluting stoves comparing to the male-dominated Panchayats.[3] They also shut down illegal drug stores, attempted to achieve quality schooling and develop safer drinking water. In fact, "participation in local government is more practical for women than at the national level because eligibility criteria for the local level are less stringent, and local government is the closest to women's sphere of life, and easier to combine with the rearing of children" (Evertzen 2001: 3).

But in Bangladesh, unfortunately, the level of women's participation in local-level politics has been as insignificant as in the national level. In the local government elections of 1988, before the introduction of the universal adult franchise, there were only 863 women candidates out of 114,699 (0.7%). The 1993 local government elections witnessed similar levels (Islam 2000). These poor participation figures clearly demonstrate the fact that politically women are lagging behind men.

Location and Methodology of the Study

The research (undertaken by Aktar as first author) was conducted in Rajshahi district of Bangladesh. There are 64 districts in Bangladesh, and Rajshahi is one of the oldest. It is also one out of seven divisional headquarters in the country. The district of Rajshahi has a population of about 2.2 million of which around 93% are Muslims, 5.5% Hindus and 0.62% are Christian. For this study we chose Rajshahi because it is away from the national capital, and the average per capita income and infrastructures arguably represent the country as a whole.

Methodology of the Study

Women's empowerment through direct election in the reserved seats is an ongoing process and requires in-depth field research for which we choose the qualitative method. Qualitative methods are particularly suitable to investigate real-life insights where quantitative methods are not sufficient. Qualitative methods give valuable insights into the thoughts and ideas of the respondents. It provides opportunities to understand the value and meaning people inherit and share and the way they are attached to particular things and events in their society (Babbie 2007). Since most of the respondents in this study are newcomers in local government bodies and are illiterate or lack adequate education, using a range of qualitative methods enabled thoughtful responses for the purpose of the study. The research attempts to explore the activities and behaviour of the respondents, to describe the place and

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[3] Panchayat is the lowest tier of the rural local government in India.

circumstances in which they live and to analyse the changes they make to their community as well as the way they make those changes. In such this study follows a broad range of research tools including interview, questionnaire survey, case study, participant observation and focus group discussion.

Among the 55 Union Parishads (UPs) in Rajshahi, 20 UPs randomly selected from 6 thanas were the focus of this study. There are 3 reserved seats in each UP for women representatives, so 60 women representatives elected from 20 UPs are the main respondents of this study. Besides we also collected data from ten male representatives and ten knowledgeable informants outside politics who have valuable views about the effectiveness of political representation. These key informants include community leaders, NGO officials, journalists and academics. We also had conversations with numbers of local people, both men and women, about their perception and views on the participation and representation of women members.

Data Collection and Analysis

Primary Data

Primary data were collected through participant observations, interviews, questionnaires and focus group discussions. The data collection techniques are explained below:

(a) *Questionnaire*: Primary data were collected from elected women representatives, who were my main respondents. A structured questionnaire was used to collect data. Multiple answers were given for each question, and participants were required to pick their best response. Since most of my respondents had lower levels of education, this helped me to extract the most relevant responses. There were also some open-ended questions so that respondents could provide comments and suggestions reflecting their experiences in the functions of the local government institutions. Finally, the data were tabulated and coded as per the research objectives and analysis purposes.

(b) *Interview*: After the questionnaire, we conducted in-depth interviews with 15 elected women representatives chosen from the questionnaire session. Women representatives selected for closer interviews were those who appeared more conscious about their role and performance, demonstrated eagerness to contribute to the decision-making process of the local government, tried actively to contribute to the development of women of the wider society and had the spirit to confront social and cultural barriers towards women's empowerment. This in-depth interview enabled to get further insights about key issues identified during the questionnaire survey. Since many of the elected women representatives were first timers in local government politics, understanding their personal experiences, wisdom and ideas was important.

We also interviewed ten knowledgeable respondents comprising two community leaders, two government officials, two NGO personnel, two academics and two journalists. Studies show that women organisations, NGOs, journalists and academics are contributing to the attainment of women's empowerment in the society (Aktar 2009; Chowdhury 2008; Viswanathan et al. 1997; Moser 1993). They are working to eliminate discrimination and injustices towards women and to bring positive changes towards women's empowerment. Interview of these groups of respondents, therefore, enables to obtain valuable insights about their thoughts and recommendations on the problems and potentials for further empowerment of women in Bangladesh.

From these initial interviews, follow-up interviews of ten vibrant participants were further conducted for deeper discussions about their personal experiences, thoughts and advice on key issues. Furthermore, the interviews were conducted in the local language and respectful of local culture so that respondents feel proximity with the interviewer. This is helpful to build a trusting environment in which the respondents felt free to disclose their own story to the interviewer (Kothari 2005). Finally, during interview the respondents were assured that their anonymity and privacy will be maintained by which we secured their unhesitant responses.

(c) *Focus Group Discussion*: The elected women members of the local government institutions were invited to participate in focus group discussions. We arranged 2 focused group discussions with each group of 15 respondents. The discussion was helpful to extract and justify further information about the issues identified in the questionnaire survey and interviews. It also helped us to observe how the respondents interact with each other and consequently gave an impression of the respondents' inter-personal connection, cohesion and communication necessary to empower women respondents at their institutional settings.

(d) *Observation*: For the purpose of the study, we also attended different functionary processes of the local government institutions. We attended general and special meetings and visited development projects carried out by the elected women representatives. The projects include agricultural input distribution; building rural roads, bridges, culverts and flood dams; construction and repairing of schools, mosques and temples; and projects on fisheries, community forestry, greenery and nursery. We also attended judicial activities conducted by the LGIs and attended by the women representatives. These judicial matters include resolving marital disputes and disputes over land/assets ownership and resolving of criminal offences like acid throwing, dowry, lost property and so on. All these helped us to observe the way elected women representatives were working and how effectively they perform. It also helped us to explore factors such as attitude of the chairman, male members and the wider community towards women members. Since many of the women representatives were first timers in local government politics, they might be unaware of their role. Observations were helpful in such a situation to get firsthand experience of their role performances.

(e) *Case Study*: The questionnaire, interview and focus group discussion were part of an overall case study approach. Case studies offer in-depth examination of a particular instance while explaining social phenomenon (Babbie 2007). It provides opportunity to get deeper insights from facts and phenomena the respondents might encounter (Roberts 2001). It attempts inquiry into real-life contexts with evidence and helps to analyse the perspectives under consideration (Yin 1994). Since the elected women members were coming from different socio-economic strata, participants' own narratives provided valuable insights about the dynamics of the local government politics, the challenges women face in local government election and functioning and the range of strategies used to overcome those problems.

Secondary Sources of Data

Secondary data were collected from government and NGO offices, newspapers, periodicals, journals and published books. These were helpful to collect data about the historical movement of reservation of quota seats for women in Bangladesh, the numerical statistics on women representation over time at various levels of government, the Acts and Ordinances of the government in different time periods relating local government and women's political participation and the thoughts and movements of the civil society, women leaders and researchers in empowering women politically.

Techniques of Data Analysis

The questionnaire we used in this study had both open- and close-ended questions. The collected data were arranged in tables, and interviews are presented by observations and case studies. Data were tabulated in precise form so that valuable information can be obtained at a glance. Tabulations are designed in a way such that the factors affecting empowerment and variations can be easily traced. As well, case studies are presented to round out the statistical data and to postulate the deeper insights and perspectives women representatives could provide.

Problems of Data Collection

It is true that although the provision of reserving seats and direct election for women in each local government has provided opportunities for empowerment of the women, the fact remains that they are still part of a patriarchal society. Elected women representatives are generally semi-literate and new to the field of governance.

Thus, there were many difficulties to extract data from them. Women representatives were hesitating at the beginning to talk to me as an outside person. They were afraid that their statements might be leaked out and they might face trouble due to this. They were especially concerned while talking about their relationship with male colleagues and chairmen and about the working environment of the LGIs. As the researcher, we had to spend long hours to make sure they understood the real objective of the research, be friendly, dress in local clothing and talk in local dialect to earn their confidence. Researcher's professional position as part of a university faculty in Rajshahi also helped me earn trust from the respondents. We also assured them that the names of the respondents will never be published in any way as per the ethics obligation of this research.

The questionnaire survey and in-depth interviews were conducted at women respondents' homes to ensure their privacy and sense of security. However, the curiosity and unwanted presence of family members and often their interference appeared problematic during interviews. We had to be tactful in such instances, maintaining patience and easing the situation. There were times when questions had to be repeated or subsequent visits made at more convenient times. Thus, adopting and adjusting a variety of strategies enabled us to gain necessary information for the purpose of the study.

Interviewing the key informants including the government officials, NGO personnel, academicians and journalists was difficult as they were very busy. We had to contact them over phone/email, set an appointment and still had to wait long hours or reschedule meeting in many incidence. However, we did not lose patience and was able to achieve the required interviews and valuable insights from these knowledgeable professionals.

Empirical Findings: The Challenges Unexposed

The Local Government Ordinance (1997) provided Bangladeshi women the opportunity to take part in direct election in reserved seats for the first time. It is essential to investigate to what extent women were able to make decisions contesting election, the challenges they faced and whether they are able to make political or policy decisions once they have been elected. This paper sheds lights on women representatives' ability and opportunity to choose and, in such, examines their achievements and empowerment in the decision-making process. It is also worthwhile to uncover the characteristics of the female respondents to figure out who are grasping the opportunity opened by the introduction of direct election in the reserved seats. In particular, it investigates who are coming into electoral politics and how they are coming into it and what are the issues and challenges women representatives have faced in contesting elections.

Contesting Local Government Election: Decision, Choice and Challenges

Empowering women through direct election in reserved seats requires, *first*, an atmosphere in which women candidates face no obstacles, fears or terror contesting local government elections. A congenial atmosphere is essential to bring women into the electoral politics considering the traditional conservative social structure of Bangladesh. It is, therefore, important to explore the nature and extent of challenges women face while contesting elections, specifically in deciding to contest an election, in campaigning, financing election expenditure and other socioreligious constraints. It is also important to mention that the decision to contest election involves complicated intra-household bargaining, and, therefore, the agency in such decision-making is a significant indicator of women's empowerment. Analysing electoral decisions and associated challenges will, therefore, help to understand the issues women representatives face in contesting elections as well as the extent of women's empowerment in the decision-making process delegated by the provision of direct election in the quota seats.

Decision to Contest Elections

One aim of the 1997 Act was to encourage women from all strata to come forward and take part in local government politics. The venture of empowerment through direct election in quota seats begins from the decision to contest elections. As UNIFEM (2002) mentioned, women's political empowerment is essentially their increased control over the decisions influencing their lives within as well as outside their households. In line with that, we investigate the factors affecting such decisions, to evaluate the extent to which women were really self-motivated and made their own decisions. Respondents were asked if contesting in elections was their own decision at all.

A majority of the respondents in this study (63%) mentioned that contesting elections was decided jointly by themselves along with their families. A number of these respondents (24%) further emphasised that they were pushed by their families to stand for election. These women representatives mentioned that they did not know and did not feel comfortable about politics. However, their families assured them the necessary support for victory that helped them decide to join the election contest. One women member mentioned:

> I was nervous at the beginning when my husband proposed to stand in election. I was not ready even to think it seriously. But he mobilised my entire in-laws who promised me all out support from campaigning to victory. I did not have any reason than to say no. In fact all my family members, in-laws, and relatives worked hard to make me win. I firmly believe without their inspiration I could not even dream it.

Some other respondents reported having tacit desires to contest election though the family took the final decision. As one women member justified:

Contesting election is not a joke that can be made without a second thought. It's a very big decision and the entire family is involved with it, especially the huge expenditure associated with election. I cannot take such a big decision alone rather I let my family to know my desire and they opted to go for it.

The findings also indicate the importance of family background and patronage network for women's participation in politics. The story of Mrs N. B. is worthwhile to mention.

Mrs N. B: The Light and Shadow

Mrs. N. B. was elected to the office in January, 2010. She is the wife of a veteran local politician of the ruling party of the country. In the parliamentary election in 2008, her husband sought nomination for the parliamentary seat from the ruling party. But the party high command nominated a business magnate instead of him. After the election, the newly elected member (MP) attempted to sideline him in party politics. When local government elections were announced in January 2010, his supporters saw it as the last opportunity to exist in power politics. So he wished to contest for election, but the MP opposed his candidature and pushed another candidate as party nominee. Failing to get party nomination, he pushed his wife (Mrs. N. B.) as an independent candidate. She mentioned that though she was not involved in politics, the situation brought her there. She contested the election and won convincingly, enjoying the popularity of her husband as a respected leader. During this interview, Mrs. N. B. was still surrounded by the party workers and supporters of her husband. In a private chat with me at her residence, Mrs. N. B. said that she is guided by her husband and his party workers for most of the development work.

However, the story of Mrs. N. B. indicates that participation and representation of women in local government institutions might just work to strengthen the position of their husbands and families rather than the women themselves. It recalls the patron-client relations determining certain aspects of institutional order (Eisenstadt and Roniger 1980). Power relations in such are characterised by simultaneous exchange of resources on the one hand (e.g. money, vote, protection and support) and promises of loyalty and solidarity on the other. Women representatives act as mere proxies for their husbands and seldom focus on issues beyond extending the family's position in society.

Respondents' Motivation to Take Part in Local Government Election

To understand their focus and priority in local government functioning, women representatives were also asked about the reasons which motivated them to take part in local government elections. Table 17.1 shows that though reason of social

Table 17.1 Motivation for contesting election (multiple responses)

Motivation	Number of respondents
To serve local people	58 (97%)
To work for women development	58 (97%)
To raise local needs in the local government body	50 (84%)
To improve my position and voice in the family and society	50 (83%)
Expecting material and non-material benefits for family	42 (70%)
Further political interest beyond reserved seats	6 (10%)
Other reasons	12 (20%)
Total	60 (100%)

contribution is a dominant factor contesting election, about 70% of the respondents conceded self-interest as crucial behind their election motivation.

These respondents viewed their honorarium and other financial benefits as a way to contribute to their families. To these women, they aimed to contribute to their families by bringing some financial and nonfinancial advantages which would not otherwise be possible for them to acquire. One woman member explained in a follow-up interview that:

> I have three daughters and two sons. The elder one is a girl who is married some years ago. She was only 14, going to school but all in a sudden my husband set her marriage. When I opposed my husband he asked me: "if not married, will you feed her? Will you manage her educational expenses?" I was helpless as not earning anything for my family. Since then I was thinking to do something for my family so that my other children can have proper education, do not fall victim of child-labour or not forced to get married before age. In fact the honorarium and other allowances I get from the Union Parishad, though meagre in amount, helped me to support my kids.

This motivation for self-interest to prevail and for so-called basic *practical gender needs* to be addressed and not *more strategic needs* are dominant among women members who are income poor. Aktar (2009), Mahtab (2007) and Moin (2004) also evidenced similar findings amongst rural women representatives who were elected to power at the local level. In studying ultra-poor women, Huda et al. (2008) mentioned that even in groups targeting the extreme poor in rural Bangladesh, women were found to be motivated by self-gain. This might distract women representatives from social motives and achieving strategic gender needs, in Moser's (1989, 1993) terms. As Bourdieu (1977) mentioned, an individual's manoeuvering for self-interest could result in negative social dynamics.

Political Involvement of the Respondents Prior to Election

Respondents were asked if they were involved in politics and political parties before contesting local government elections. This is important because involvement in the political process is imperative in the decision-making process (Brody 2009;

Table 17.2 Were you involved in politics before contesting local government election?

Involvement in politics	Number of respondents
No	52 (86.7%)
Yes	8 (13.3%)
Total	60 (100.0%)

Eschle 2001; Gurumurthy 1998; Thomas 1997). It is evidenced that only 13% of women representatives had early experience of political involvement before being elected in the local government. This is consistent with the fact that these rural women have less than 10 years of schooling and that they do not go out of home very often in this patriarchal society. Since politics is an outdoor activity, it has been a male domain.

Table 17.2 shows that a vast majority of the respondents are new to local-level politics. This is a significant point, in one hand, that the direct election in reserved seats has brought a number of women in political participation. It is clear that once government introduces direct election in the quota seats, it creates enthusiasm among the women to come forward and take a political role. During in-depth interview, as many as 87% of the respondents mentioned that they became involved in politics because of the introduction of direct elections in the quota seats. As Mrs. S. K. illustrates in her story:

Mrs. S. K.: It Is Quota, Not Money and Muscle Anymore
Mrs. S. K. is a college graduate and is employed, and prior to being elected, she was engaged in various social activities. Mrs. S. K. said that during her college life she saw some of her friends involved in politics. She never thought to join them, seeing no future in politics because in Bangladesh the field is male dominated and controlled by money and political muscle power. According to Mrs. S. K., it was almost impossible for honest, committed and sincere people to survive in corrupt party politics. She became a school teacher and engaged herself in social welfare activities. However, after the introduction of direct elections in the quota seats in 1997, she changed her stand. To Mrs. S. K., quota and direct elections have replaced the process of "oiling" the chairman for nomination and the need for money or muscle. It has opened a space for women from all strata to come forward and take part in governance and to serve local people. As she stated, quotas were there for a long time, but it was the introduction of direct elections that offered a level playing field, and she joined politics as a result.

The story of Mrs. S. K. supports the findings of others that the quota system works as the fast track to bring women into political representation (Dahlerup 2006; Tripp and Kang 2008; Krook 2009). Though the quota system has drawbacks in regard to empowering women (Krook 2006), it is an effective strategy to bring the numbers in the table. In Bangladesh, for example, the direct election in the quota seats through the 1997 Act brought women into one-third of the positions in local government, whereas only 0.7% of the contestants were women in the previous election (Islam 2000).

Family Involvement and Prior History in Electoral Politics

Since most of the respondents mentioned that they are new in electoral politics, we asked if any of their family members ever contested local or national elections in the past. This is important because political efficacy is highly influenced by familial ties and one's political interest burgeons from the direct political incidence and the happenings she encounters among her family, friends and relatives (Halder 2004; Eulau 1962). This is particularly important for women as social restrictions often deter women from entry into politics (Brody 2009; Darcy et al. 1987; Stacey and Price 1981) and Bangladesh is a developing country with strong presence of patriarchy. However, familial ties could be seen as equally important in politics across the world; the examples of the Kennedys, Hilary Clinton, George Bush, Al Gore, Indira Gandhi, Benazir Bhutto, Suu Kyi and Megawati Sukarnoputri are just a few of note. These people have used the strength of family ties to help them achieve political success and, in some cases, to leave a legacy of patronage and rent seeking. In Bangladesh the present prime minister and the opposition leader (both women) are successors of family dynasties, and most of the 50 women members in the reserved seats in the current parliament are nominated based on family political history.[4]

In this study about 23% of the women respondents mentioned that their families (including extended families) had election histories. These respondents mentioned that politics is part of their family and they come to contest elections as their families have already been involved in electoral politics for many years. To them, once direct election was introduced in the quota seats, their families decided to participate to further strengthen their political hold. Familial networks, by providing a ready team to work, also boost a candidate's confidence while campaigning. One female participant mentioned:

> My father-in law was Chairman of this union for 17 years. Our family has a long history of politics and everybody counts on it. However, all of his three sons are in government jobs and were not contesting in elections after his death in 2001. All of his daughters are married out in distant towns. The balance of power, has, therefore, moved away from us and in favour of our rivals in recent times. My in-laws, therefore, asked me to stand for election to restore our pride and position in society. Once I decided to contest, a lot of known and unknown people who were followers of my father-in law joined my campaigning team. The socio-political network I got was readily inherited from my late father-in law. It made my campaigning easy, and I felt confident with such an experienced and jubilant team. After all, election depends on team-work and a ready team is surely a huge advantage.

This story shows the implication of patronage networks for the political participation of women in LGIs (Aktar 2009; Eisenstadt and Roniger 1980). This is particularly important and emphasised by these rural respondents in this study who are not highly educated, have lower levels of income and employment and hence lack self-confidence.

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[4] The current parliament has nominated 50 women members in the reserved seats. The number of reserved seats each political party gets is determined by the percentage of votes parties received in the general election.

However, for about 57% of the respondents, this is the first time their families have become involved in electoral politics, having no prior election incidence. They mentioned that the provision of direct elections brought them into politics and elections. While we asked them if being involved in electoral politics for the first time was a problem for them, many of them replied so. The inexperience of the respondents themselves as well as of their families made it difficult for them to contest elections. One female member summed up:

> Contesting election was not in my mind. But the direct election in the reserved seats offered a chance to take part in the development effort of the society. Once I decided to take part in the elections as a candidate, I found it difficult due to the complexity of electoral politics and my inexperience in handling these situations. Contesting elections involves huge financial expenditure and tackling pressures, threats and harassment from rivals, as well as campaigning day and night. Supporters of one of my rivals tore my posters off and barred my workers from campaigning in her village. They snatched away our microphone used for campaigning and broke it into pieces. We had to lodge a complaint to the police station and the election office. We had never been in such a situation and were completely lost. Many times I lost my appetite to compete in the election and thought to withdraw candidature. I was feeling guilty bringing those pressures on my family. The only thing is that my husband and my family were beside me, never gave it up and managed somehow till the end. But surely things would have been different if we had prior electoral experience.

Campaigning for Election

Campaigning for election is an important phase of participating because it forms the bridge between the candidates and the community (Getz 2005; Chowdhury 1994c). This requires women candidates' mobility out of home, personal freedom, ability to express and argue their own ideas and demonstration of commitment to the local community. Mobility is considered as an important criterion of women's empowerment (Mahmud et al. 2012; Kabeer 2011; Mason 1984). The social interaction exerted through participation in an election campaign is important in a patriarchal society like Bangladesh and in Rajshahi where women's mobility to go out of home is restricted. The survey data show a large number of the respondents could not campaign on their own; instead, their family members did it for them. As one member explained:

> Voters want to see me, to talk to me and to know my motivation. They want to know what exactly I am going to do in the local government. They want to hear directly from the candidate for whom they are voting, they don't want to hear from my husband or parents.

Campaigning for election gave women respondents a rare opportunity to go public. It helps candidates about local problems and people's expectations, which enabled them to plan relevant policies once in office (Table 17.3). It also helped them raise voice in the LGIs and to convince others to support their case. Thus, apart from increasing women's mobility out of home, campaigning for election led to an increase in women representatives' social capital and to have their voice heard in public (ADB 2004; Khan and Mohsin 2008).

Table 17.3 Did you campaign for election by yourself?

Campaign yousrself	Number of respondents
No	6 (10.0%)
Yes	54 (90.0%)
Total	60 (100.0%)

Respondents' Ability to Campaign Day and Night

Campaigning for election is a time-consuming job and often requires candidates campaigning day and night (Getz 2005; Frankl 2004; Siddiqui 2002). Campaigning at night, though, is primarily a phenomenon of male candidates because in this conservative society women are supposed to comply with "the sunset law" that women should finish their outside job and return home before the sun sets. As Mukhopadhyay (2003) and Murshid (2004) mentioned, Muslim women are not allowed to visit outside in the evening. Restrictions are also there about where women can go and where shall not. This study also finds evidence of gender discrimination in terms of mobility and personal freedom. Most of the respondents (95%) of the study mentioned faced various problems during campaigns that were not faced by their male colleagues. As one woman representative pointed out:

> I could not campaign in the public places e.g., shops, tea-stalls, markets, roadsides, etc., but the male candidates were free to do that. I had to rely solely on door to door campaigning to reach the voters. I couldn't lead the rallies although my supporters were rallying the streets chanting slogans for me. This is all because I am a woman and women in our society are not supposed to do all those outdoor activities.

The restrictions put limits on their choice, a significant fabric of women empowerment (Kabeer 1999). Often it also contributed to dampening their self-confidence and increase dependency on their husbands and male family members. Following Kabeer (1999), it can be argued that such dependency on men cannot accelerate women's empowerment. Rather it restricts women's boundaries in terms of choice, agency and action. Women's dependency on men in election campaigning was later evidenced to bring unwanted intervention in women representatives' functioning in the local bodies due to patron-client hypothesis (Aktar 2009; Eisenstadt and Roniger 1980). The sociocultural stigma and restrictions on women's mobility during election campaign were, therefore, evidenced as a detrimental factor in empowering women.

Reaching All the Voters: Fiasco of the Quota Seat

Local government elections in Bangladesh are festive events demonstrating strong interest of the masses. There is often a high voter turnout of up to 95% despite voting is not mandatory (Mahtab 2007; Thorlind 2003; Chowdhury 1994b). It is important, therefore, that candidates should contact every possible voter. Yet, the survey data show that women representatives were constrained by the larger size of the

constituency of quota seats compared to general seats. About 47% of women members reported that they could not reach all voters. One woman representative stated:

> Quota seat constituency is too big to reach all voters. A quota seat comprises 3 Units whereas a general seat is for 1 Unit only. It is, therefore, difficult for us to cover the entire area in limited time allowed for campaigning.

This justifies Kabeer's (1994) argument that gender inequality is not only produced at the households but also can be present and systematically reproduced in institutions and organisations. She termed these sorts of institutional policies as *gender blind* that fail to address existing gender inequalities and hence needs urgent correction. The women respondents of this study, thus, mentioned that their constituency should be smaller, e.g. similar size to the general seat, in order to ensure effective participation of women in local-level politics. Women members also mentioned that they only got 4 weeks for election campaigning which is inadequate to reach voters. But they emphasised that reaching voters is important in order to truly represent the constituency. One woman member argued that:

> If I cannot reach all my voters, how can I bear their voice? Am I truly representing them and their needs? How can I contribute to the development of my area?

The survey data, therefore, reveal that though the provision of direct election in the quota seats has increased participation of women in local government bodies, female representation is yet to be achieved because of the existing quota system in Bangladesh. These findings also warn about the danger of considering top-down policy as the sole strategy in formulating policies to empower women. Rather it recalls the importance of listening to women at the grassroots, an alternative bottom-up policy (Chambers 1983) for development intervention. Most of the women representatives further mentioned communication as the major challenge reaching all voters in such a bigger constituency. The women members (87%) mentioned that the only means of transport they could use was Rickshaw which was expensive considering their poor financial position. On the other hand, riding on a bicycle or a motor-bike by a woman or to be a passenger in those was not accepted in this conservative social structure—a popular and cheaper mode of transport for men (Panday 2008a). All these problems caused women members' increased dependency on men to campaign for them resulting in lack of self-confidence and reduced networks and esteem necessary to women's agency and empowerment. Thus, it appears that the size of quota seat which is three times bigger than the general seat puts considerable impediment in achieving necessary social networks, resources and agency for women representatives—important for their empowerment and achievement in Kabeer's (1999) framework (Table 17.4).

Election Expenditure

Financial issues often create challenges for women to take part in local government elections (Karl 1995). Without economic resources and freedom, women cannot manage contesting elections and establish their own voices. It is, however, evidenced that significant numbers of the women representatives have little or no income.

Table 17.4 Who financed your election expenses (multiple answers)?

Who financed	Number of respondents
Myself	36 (60%)
Husband	58 (97%)
Parents/siblings	10 (17.7%)
NGO	2 (3.33%)
Political party	–
Chairman/mayor candidate	–
Total	60 (100%)

Most of the women representatives (about 97%) mentioned were dependent on their husband for election expenditure. There was no evidence of financial contribution from political parties or local government chairmen, and only 3% of respondents received assistance from NGOs. The data show that women members were dependent heavily on their husbands and family members, which hints at the emergence of a patron-client relationship. Empowering women appears challenging in such a situation where women members are dependent on their husbands for election expenditure and consequently compromising to husband's dictation once elected. As Eisenstadt and Roniger (1980) and Khan (1998) argue, power relations in a patron-client network are characterised by exchange of resources from the patron against indicated loyalty of the client. The story of Mrs. F. N. can give further insight in this respect.

Mrs. F. N.: Money Matters Most!

Mrs. F. N. is a member elected from Nimpara Union Parishad. She is an uneducated housewife with no personal income of her own. Her husband pushed her to contest the election, and after submitting nomination papers for election, she realised the financial constraints. Her husband assured that he would manage the finance, and he did. But because of this, she was entirely under the will by her husband during her election campaign: from printing posters to organizing rallies, everything was done by her husband. After winning the election, she found herself helpless because her husband controlled all her decisions. She found that her husband was finalising the relief lists, development site selection, etc., of the Union Parishad in exchange for financial benefits.[5] Though she felt disgraced by these unwanted and ill-motivated acts of her husband, she is powerless to bar him from doing such as he often points to her election expenditure to rationalise his actions. Thus, she has become a tool for her husband to gain material and non-material benefits.

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[5] The local government institutions in Bangladesh are in charge of, on behalf of the national government, to list, allocate and distribute relief items (e.g. rice, wheat, flour, sugar, pulse, cooking oil, cloths, tube-wells, etc.) to distress households. Note that like many developing countries, Bangladesh doesn't have pension system for its citizens. Instead, the poor and extreme poor households are provided regular assistance (mainly food items) through local government institutions. Due to low supply and high demand of such relief operation bribery, corruption and nepotism are heard very often.

This justifies Wade's (1984) argument (see also Khan 1998) that the typical patron-client relationship in South Asia begets rent-seeking behaviour and corruption. Following Kabeer (1999), the dependency on husbands meeting election expenditure, thus, begets women member's lack of necessary agency which eventually undermines their achievement and empowerment in the local government system.

Religious Problems Faced by the Women Representatives

Social conservatism in Bangladesh is related to religion, in particular to *Islam* (Mahmud et al. 2012; White 2010). Mahmud et al. (2012: 617) mentioned that, "the practice of purdah confines women within the homestead and compound and they generally have to seek permission either from the husband or older in-laws, or at least inform them when going outside". Kabeer (2011) mentioned that purdah often leads to social seclusion especially for poor women. Majority of the representatives of this study mentioned that they felt religious and patriarchal pressure during election campaigning. These included fatwa (compulsory instructions) issued by fundamentalist religious leaders who oppose female leadership in *Islam* and object to women entering public office while putting restrictions on women's mobility out of home (Riaz 2005). Most women representatives of this study appeared to be practising Muslims and dressed following Islamic code (see Photograph 17.1).

About 79% of the women representatives claimed to wear clothing acceptable for purdah because of religious, family and social pressures. Most of them mentioned

Photograph 17.1 Picture of elected women (and male) members from Sholua UP, Charghat, Rajshahi. (First author's own photograph), taken with permission of participants in 2009

taking a male companion when going outside, especially after sunset to avoid possible harassment.

Women members explained that they could not win in election while denying the expectation of the society. They mentioned that their families also pressured them to follow the purdah while going outside homes. Women members further mentioned the importance of showing modesty and conformity to social practices in order to convince their families to allow them to go out and do politics. This is also important to get voters' empathy and support. A non-practising Muslim woman often becomes the target of religious fatwa which is also evidenced by Panday (2008a), Halder (2004) and Moin (2004). Panday (2008a) mentioned that women representatives even faced the threat of divorce from their husbands if they did not wear the purdah when going out.

One of the female representatives who is educated and employed mentioned that understanding religious values of the voters is important in getting their support. She mentioned that she won the election with a convincing margin as she knew what people wanted to see in her as their true representative. She explained:

> Being a candidate in the election is a test of conformity to social values. It requires how good a candidate is in socially representative metaphor. Thus, if people feel that wearing purdah is a symbol of chastity, a symbol of submission to Allah, I must have to practice purdah to show that I truly represent them and they can vote me without hesitation. If I do not practice Islam and do not show it off publicly, I cannot secure their confidence and vote.

Another woman representative mentioned that:

> Going public by women is not liked in my village and women are not likely to talk to the outside men. I knew it and so talked mostly to the women when campaigning for election. If I knew that there is any man inside home, I just said Salam[6] to him and moved talking to the women keeping my voice mild. I talked to men only when it seems that they want to talk to me and it is worth talking. However, before talking to the men I used to make sure that my head is covered with scarf and no part of my body is visible confirming Purdah.

The purdah norms and practices are maintained by women representatives without any choice but as given. A women member, thus, mentioned:

> Covering head by a long scarf is the very first thing I was used to do while going outside for election campaigning. Then it followed by Salam. Without Purdah and Salam one cannot dare to win election in this society. Furthermore, women with no Purdah and Salam were often teased by the young hooligans and also faced criticism from her rival candidates as anti-social and anti-Islamic.

These experiences show that personal choice, a key indicator of empowerment (Kabeer 1999), is severely curtailed by the widespread conservative social norms and religious practices. It is also apparent that unless such religious and social inequalities are tackled by appropriate educative and legal measures, many women will be deterred from entering the political sphere.

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[6] Salam is the Islamic way of wishing and greeting. In full meaning it means may Allah bless you with peace and tranquillity. Saying Salam is considered as reflection of one's humbleness to the elderly, modesty and religiosity.

Table 17.5 What factors do you think helped to win the election? (multiple answers)

Factors affecting winning election	Number of respondents
Your suitability as a candidate	29 (96.67%)
Family factor/influence	21 (70%)
Support from women	20 (66.67%)
Support from chairman/mayor	7 (23.33%)
Support from political party	2 (6.67%)
Other	1(3.33%)
Total	30 (100.0%)

Factors Influencing Election Victory

The discussion above shows that the women members came from different socio-economic strata and they had to come through various challenges during their election effort. It is, therefore, important to explore the factors women respondents consider pertinent to help them win in the election battle. The respondents were asked to identify such factors presented in Table 17.5.

About 70% respondents of this study mentioned that family influence helped them in winning elections. In contrast, political party support was not emphasised by the women members. As mentioned previously, election laws in Bangladesh do not allow political party nomination or party campaigning in local government. Although some candidates had political party affiliations, they could not approach voters officially as a party candidate. In some cases, there were even multiple candidates from the same party affiliation in the same constituency; thus competition was more personal than party related.

Social network and social capital are emphasised by women respondents. One women member mentioned:

> My husband is a village doctor. He is very popular in this area for his service. He used to visit every single door; every single men and women of this village treat him as a family member. Whenever someone is sick, people used to come to him day and night. His popularity and service gave me a clear edge in the election.

This study finds that social capital achieved through the individual social skills, good will and trustfulness (Coleman 1988; Putnam 1993; Glaeser et al. 2002) of the women respondents helped them in winning elections. This is consistent with Glaeser et al. (2002: F438) who argued that social capital is, "a person's social characteristics including social skills, charisma and networks which enable him to reap market and non-market returns from interaction with others".

Conclusion

This paper discusses the issues women representatives faced in contesting election in the local government institutions in Bangladesh. It is evidenced that the decision to contest elections was taken mostly by the families of the women representatives.

To Kabeer (1999), the empowerment of women must have to be analysed in the dimensions of making choices relevant to women's lives and livelihood where the dimensions of choice are resources, agency and achievement mentioned earlier. In this study, women members were found to struggle in exercising agency and mobilising resources while making decision to contest election, during election campaign as well as functioning in the LGIs once elected. Electoral campaigning, agency in deciding to contest elections and the role playing in office were expected to provide women representatives an implicit platform to overcome patriarchal barriers and to breach the private-public domain existing in this conservative society. But unfortunately, it is evidenced that women members had to rely on their families, in particular, to their husbands for election expenditure and campaign. Women representatives also had to rely on their husbands for campaigning at night, in remote areas and public places. Such dependency of women representatives on male guardians undermined the effort of the women in achieving resource and agency in broadening choice and empowerment. Women representatives were further subject to religious and cultural restrictions that constrained their mobility outside home. This limited ability to reach the voters further constrains women representative's ability to build necessary socio-political skill, resources and networks. Apparently, all these appear to put a ceiling on women representatives' achievement in terms of resource, agency and achievement.

Introduction of direct elections in the reserved seats, no doubt, offered women the opportunity to effectively build and employ their skills, resources and networks to attain certain goals of their choice. However, being elected is only the first phase of the challenge. Entering into this first stage of the dynamics of politics should be smooth, spontaneous and jubilant. Only an enabling environment can ensure effective representation of women and eventually can warrant vibrant role play from women representatives in the local government bodies.

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Part III
Social Economic and Environmental Challenges for Transformation

Chapter 18
Water Mismanagement as a Wicked Problem in Nauli City, Indonesia: A Mixed-Method Approach

Jackwin Simbolan and Janet McIntyre-Mills

Abstract The paper discusses the water management problem in Nauli City, Indonesia as a wicked problem that needs to be addressed by applying a critical systemic approach to the area of concern. Mixed methods will be applied to examine the wicked problem by using sequential stages of qualitative method followed by a quantitative method. Interviews with water providers and water users showed that water management conflicts have occurred and water has been used as a commodity while neglecting the quality of service. The hypothesis test through a quantitative method revealed that current condition is significantly worse than the previous (10 years ago) condition. This paper recommends that the wicked problem should be addressed by considering at least three aspects: governance, demand management, and preserving the environment.

Keywords Mixed methods · Wicked problem · Water management

Introduction

Nations around the world have treated water as a commodity and assigned companies (which are solely or partly owned by the government) to manage water provision. McDonnell argues that water provision should be managed in a more local context to accommodate local ideas and demands (Mcdonnell 2008). This view has also been implemented by nations by conducting water provision at the local or regional level. However water provision is still problematic in most of

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the developing countries, and part of the problem is poor performance and corruption of publicly owned water companies that are obliged to convey the duty (Segerfeldt 2005).

In Indonesia, water provision has been delegated as local government's function, and the local governments establish local water companies, called PDAM or Perusahaan Daerah Air Minum. However separation of function between central, provincial, and municipal governments in water sector is not clear enough which leads to conflicts of authorisation during the implementation. Nauli City is taken as a case study as this city is located in and as the capital city of the driest province in Indonesia, and water provision performance in this city was very poor. People were struggling to get good access to safe water in which it leads to a wicked problem that has affected social, economic, and environment aspects. It can be regarded as a wicked problem since it has many interrelated variables, conflicting values and interests amongst stakeholders, and it should be addressed holistically (Australian Public Service Commission 2007; Churchman 1967; Head 2010; McIntyre-Mills and De Vries 2008; Mertens 2015; Rittel and Webber 1973).

This paper applies a mixed-method approach, namely, a combination of qualitative and quantitative methods, to examine whether the implemented policies on water provision have properly addressed the need of the people and whether the existence of competition in water provision between three publicly owned water companies and also other private players has brought improvement to easiness in getting water. Hence the objectives of the research are (1) to reveal the causes of poor water provision in Nauli City and (2) to know from the people's perspective whether competition between the three government-owned water companies has an impact to resident's satisfaction on water provision in Nauli City. This paper is part of my Ph.D. thesis at Flinders University and has got ethic approval for conducting field work.

The purpose of applying mixed method in this paper is to find out whether preliminary conclusion that has been gathered through in-depth interviews (qualitative approach) will be confirmed by quantitative approach findings. Interviews that had been conducted in December 2015 showed that quarrel between governments and water companies does not bring any improvement to water provision performance in Nauli City. Moreover, water commodification has occurred that made the affected (poor and marginal) people suffered from the difficulties to get access to affordable water (Simbolon 2016). The next question is the following: If the local governments are only focusing on piped water services, is the piped water service better performed? Normally competition between water companies will improve the quality of their services. This research is based on a qualitative and quantitative study to find out whether there has been significant improvement in piped water service in Nauli City that is currently executed by three water companies, compared to the condition 10 years ago when there was only one water company.

Nauli City Background

Nauli City has the lowest precipitation rate compared to other capital cities in Indonesia and is very arid with mountainous landscape, and some areas are composed of limestone (BPS Nauli City 2016). The population of the city was 390,887 people in 2015 with a density of 2168 people per km^2 or ranked 54th among the most populated city in Indonesia. Nauli City was also regarded as one of the poorest area in Indonesia (BPS Nauli City 2016). Geographical condition has made the people struggle to find water from the nature (ground- or surface water and rain harvesting) and have to count on buying water from piped water or water merchants. Statistics Body of Nauli City revealed that precipitation commonly occurs during December to March, a little bit in April, while from May to November, the volume of rain is almost zero.

The government of Nauli City was established in 1996, which was previously the capital of a district with similar name: the District of Nauli. Water provision in the city area was conducted only by the district water company, up until 2005 when the city government formed its own water company, and since then, the two water companies are competing to deliver water to the residents. However there is no agreement between the companies and their owners, the local governments, to separate the area of service between the two, and it has raised a prolonged conflict. The problem deteriorated since the provincial government formed its water company in 2011, which basically created to manage two national dams that were built to supply raw water to surrounding PDAMs. It became worse because the provincial water company started to sell water to end users (universities, airports, and groups of households).

Even though three public water companies have operated in this area, their performance was far less than satisfactory as their coverage only reached 38.17% of households in the city in 2015. This circumstance has been exploited by private water merchants to get their own profit, which will be explained further in the chapter.

Theoretical Approach

According to Mertens (2015), the concept of wicked problem was firstly introduced by Rittel and Webber (1973) in 'Dilemmas in a General Theory of Planning', even though this concept is similar to what Churchman (1967) refers to as ill-formulated problem. Russell Ackoff uses another term for this similar kind of problem: a mess (Ackoff 1974). These scholars describe the problem as having confusing information and conflicting values and involving many decision-makers and clients, and any proposed solutions can be worse than the symptoms (Churchman 1967), have many interlocking aspects and cannot be solved (Ackoff 1974), have no definitive formulation, have no stopping rule, have the outcome that will be perceived to vary across

stakeholders, and have every wicked problem a symptom to another (Rittel and Webber 1973). In addition to those characteristics, other scholars also describe the wicked problem as highly resistant to resolution, for which time is running out, ambiguous, and hard to know what the actual source is (Australian Public Service Commission 2007; Head 2010; Mertens 2015). McIntyre-Mills (2014) suggests that in order to address the so-called wicked problem especially in social life, stakeholders need to address value and emotions.

Water management problem in Nauli City can be regarded as a wicked problem since it comprises of at least three interlocking parts: social, economic, and environment. The WHO (2011) stresses that water is essential to support human life; hence, a satisfactory supply of safe, adequate, and accessible or affordable water should be ensured. Safe water means the quality of water: tasteless, odourless, and healthy. Adequate refers to the quantity of water to meet the basic needs, while accessible or affordable means water is reachable physically or financially. These three aspects represent the social and economic aspects of water management.

Water is widely known as liquid, but water changes its substance constantly from liquid to solid and gas, and back to liquid again, which is called the hydrological cycle, that makes it difficult to measure the total amount of water contained on earth (Bethea 2011; Chahine 1992; Gleick 1993; Shiklomanov 1993). There are three main reservoirs of water on earth: ocean, land, and atmosphere. Shiklomanov (1993) pictures it very clearly that almost 80% of the earth surface is covered by water. However only 2.5% of it is fresh water while the rest of it is saline water. The fresh water itself comprises of ice and snow (68.9%), groundwater (30%), rivers and lakes (0.3%), and others like moisture and swamp (0.9%), as shown below (Fig. 18.1).

Experts believe that a water crisis will unfold as a global crisis due to the lack of planning and it is only a matter of time. Some believe that the main cause will be the significant increase in population which means increasing needs of water for domestic and industrial uses that will lead to competition for water use (Biswas 1999, 2001; Gleick 1993; Shiva 2008). Harper (2013) claims that environment degradation has

Total Water composition   Freshwater composition
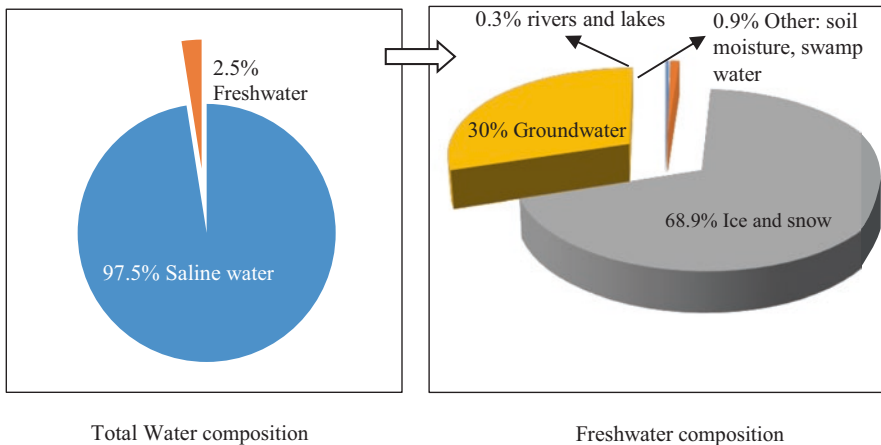
Fig. 18.1 Water composition on earth (developed from Shiklomanov 1993)

Table 18.1 Water footprint based on countries (Mekonnen and Hoekstra 2011)

	Water footprint (%)	Population	World rank of population
China	16	1.3 billion	1
India	13	1.1 billion	2
USA	10	309 million	3
Brazil	4	193 million	5
Russia	3	142 million	9
Indonesia	3	237 million	4
Pakistan	2	173 million	6
Mexico	2	112 million	11
Japan	2	128 million	10
Nigeria	2	158 million	7
Italy	2	60 million	23

significantly occurred as a result of population explosion in the twenty-first century from seven billion to ten billion in only a century.

However many argue that industry booming, lifestyle, and climate are the major cause (Hoekstra and Chapagain 2006; Rees 1992; Wackernagel and Rees 1998), and one way to measure it is by water footprint, which is defined by Arjen Hoekstra as how water is consumed to produce goods and services along the supply chain.[1] For instance, it needs 35 L of water for making a cup of coffee. Mekonnen and Hoekstra (2011) in a report reveal that, indeed, total water needed for cereal consumption accounts for the largest global footprint by 27%, followed by meat (22%) and milk products (7%), while based on countries, the data show that to some extent, population determines the total water footprint of consumption with three countries above 10%: China with 16%, India 13%, and the USA 10%. Second layer countries that have global water footprints from 3 to 5%: Brazil (4%), Russia (3%), and Indonesia (3%). Third layer, countries, such as Italy are included despite the fact that this country ranked 23rd in terms of the world population (Table 18.1).

In Nauli City, the population density in 2015 was only 2168 people per km^2 or ranked 54th among the most populated city in Indonesia, however, and has been regarded as the most water scarce area

Methodology

Research Paradigms

Camillus (2008) and Mertens (2015) claim that in order to understand and attempt to address a wicked problem, traditional methods of research can be used in combination to address areas of concern such as appropriately designed statistical analyses.

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[1] Prof. Arjen Hoekstra in a video presentation in Water Footprint Network, http://waterfootprint.org/en/water-footprint/what-is-water-footprint/ retrieved 21 July 2017.

Table 18.2 Philosophical on knowledge building

	Qualitative	Quantitative
Perspective	Subjective $\longleftrightarrow$	Objective
Ontological	Social reality is multiple	There is a concrete social world
Epistemological	Goal is to understand multiple subjectivities. Individuals are experts. No definitive subject–object split	Goal is to find truth to predict/ uncover laws of human behaviour through objective social enquiry. Scientists are the experts

Source: Adapted from Hesse-Biber (2010)

Table 18.3 Comparing paradigms (O'Leary 2004)

Positivist		Anti-positivist
	The world	
Knowable Predictable Single truth	------------------------------------- ------------------------------------- -------------------------------------	Ambiguous Variable Multiple reality
	The nature of research	
Empirical Reductionist	------------------------------------- -------------------------------------	Intuitive Holistic
	The researcher	
Objective No biases	------------------------------------- -------------------------------------	Subjective Participatory and collaborative
	Methodology	
Deductive Hypothesis-driven Reliable Reproducible	------------------------------------- ------------------------------------- ------------------------------------- -------------------------------------	Inductive Exploratory Dependable Auditable
	Findings	
Quantitative Statistically significant Generalizable	------------------------------------- ------------------------------------- -------------------------------------	Qualitative Valuable Idiographic or transferable

Mertens (2015) then describes how mixed methods have been employed to address wicked problems such as social, climate change, and environmental problems. Hesse-Biber (2010) sums up some of the argument below as follows but stresses that representation is the goal of the qualitative approach, rather than representation or mirroring reality. Hesse-Biber (2010) draws the philosophical perspective on knowledge building as shown in the table (Table 18.2).

O'Leary (2004: 7) then produces a table which shows the shifting way of thinking from positivist to anti-positivist as follows (Table 18.3).

Some of the anti-positivist paradigms include post-positivism, constructivism (Guba 1990; Guba and Lincoln 1994, 2005), and two paradigms that developed qualitative and quantitative approaches: transformative and pragmatic paradigm (Mertens 2012, 2014). Post-positivism believes that a reality exists but it cannot be known perfectly. Theories and values that are held by the researcher will influence

the understanding and the result of the research (Mackenzie and Knipe 2006), and 'we cannot be positive about our claims of knowledge when studying the behaviour and actions of humans' (Creswell 2003: 7). A positivistic (dualist) approach sees the researcher and the research object as separate and supports objectivity. A post-positivism also believes that objectivity is crucial but that dualism is difficult to maintain dualism. Constructivism on the other hand is to some extent an implementation of relativist assumptions. The researchers' background, points of view, historical experiences, and values will determine the interpretation of research results (Golafshani 2003). Crotty (1998) put forward some assumptions to characterise constructivism: (1) Meanings are interpretable, and qualitative methodology should be put in place, so participants are allowed to express their views; (2) interpretation will be strongly influenced by the researcher's historical and social perspectives; and (3) the qualitative research process is largely inductive, and meanings are generated from data collected in the field.

Pragmatic and transformative paradigms arose in order to answer disappointment from researchers and psychologists with the existing paradigms, especially constructivism (Mackenzie and Knipe 2006), from where they were developed. Pragmatists focus on the questions and aims of research and use both approaches, subjective or qualitative and objective or quantitative, to find the best result (Creswell et al. 2011). The transformative paradigm believes that constructivism did not do enough to advocate a strong vision to help marginalised individuals or groups of people. Proponents believe that research should be interconnected to a particular policy or political agenda, in order to reform or transform (change to a better) or bring good impact for the participants, the environments, and the researchers themselves (Creswell 2003: 9–10). This paper tends to implement mixed methodology (quantitative and qualitative methodologies) with the intention of capturing more complete data and eventually give better understanding to the problem through multiple lenses and perspectives.

Researchers have now moved beyond disputing the way in which to work across quantitative and qualitative research paradigms. Guba (1990) and Guba and Lincoln (1994, 2005) explain that quantitative purists (also known as positivists) are realists who believe ontologically in an absolute reality which requires observers to be independent, objective, and uninvolved in the subject of their research. They also believe that conclusions can be generalised. While qualitative researchers are relativists who believe that reality can be constructed and that the context should always be bounded by values and subjectivity, researchers should blend into the situation being observed and should not be separated, and conclusion is case specific. They are called anti-positivist by some, but a deeper study reveals that the divide is not so great and that in fact some qualitative and quantitative researchers understand that testing out ideas enables one to move closer to the truth (Christakis 2006; Romm 2001). McIntyre-Mills (2000, 2017) argues that the closest we can get to the truth is through dialogue and testing out ideas.

The four particular types of paradigms (positivism, post-positivism, constructivism, and pragmatic-transformative paradigm) as characterised by the ontological, epistemological, methodological, and axiological assumptions are summarised as

Table 18.4 Research paradigms based on ontology, epistemology, methodology, and axiology (Guba and Lincoln 1994, 2005)

Issue	Positivism	Post-positivism	Constructivism	Pragmatic and transformative
Ontology	Realism	Critical realism	Relativist	Critical relativist
Epistemology	Dualist/ objectivist	Modified dualist/ objectivist	Subjectivist	Subjective, objective, and participatory
Methodology	Quantitative	Quasi quantitative	Qualitative	Mixed of quantitative and qualitative
Axiology	Excluded	May give influence	Included—formative	

follows (the table is adapted from Guba and Lincoln (1994, 2005) for positivism, post-positivism, and constructivism and from Creswell (2003), Creswell et al. (2011), and Mertens (2012) for Pragmatic and Transformative Paradigm) (Table 18.4).

Mixed Methods

McIntyre-Mills (2003) stresses that:

The way we think shapes the way we see social issues or the way we construct them. This in tum impacts on the way we address them in our management of issues and the way we develop policy. (McIntyre-Mills 2003: 31)

To address the wicked problem, one should compare (find similarities) and contrast (find differences), consider not only numerical data but also values and emotions, and open different or even competing ideas that come from different points of view or stakeholders (individuals, groups, domestics, businesses, and governments) which can be considering different facts and conditions. The critical standpoint is when one should understand conflicting interests but eventually have to accommodate them into a policy. This will be very important when one is developing a social policy of what works, how, when, why, and to what effect (McIntyre-Mills 2003). This paper will address the area of concern in terms of Churchman's (1979) approach adapted by McIntyre-Mills (2000, 2002, 2006) based on the idea that we get closer to truth through testing out ideas with other people and through considering that truth and striving for justice really depends on working with many people to address their experience and perceptions of the social, economic, and environmental context.

From the abovementioned explanation, this paper will apply pragmatic paradigm and use mixed methods to collect and analyse the data and to interpret the results. Creswell (2003) claims that researchers today particularly in addressing social problems are less debating about quantitative versus qualitative methodology and more about how the research lies between the two and how to mix them. Pragmatic paradigm and mixed methods or multi-methods were introduced since scholars admitted that both traditional methods have advantages as well as limitations and

biases, and applying a combination method is an attempt to neutralise their drawbacks (Creswell 2003; Johnson and Onwuegbuzie 2004; Mertens 2015). Greene et al. (1989) argue that using the two methods together will strengthen the result as one method can support or develop the other method.

Creswell (2003) and Hesse-Biber (2010) explain that there are three common steps to perform mixed methods:

1. Sequential procedure: starts with one method and followed by the other method.
2. Concurrent procedure: starts both methods together along the way and eventually integrates the results.
3. Nested procedure: starts with one method and followed by the other method which is nested in the first method.

This paper will use a sequential procedure of mixed method—with qualitative methodology as the first and basic approach, followed by quantitative approach as shown in the below figure (Fig. 18.2).

The first stage involved qualitative approach conducted in December 2015 in Nauli City. The result of the findings has also been presented at the International Society for the Systems Sciences 2016 conference in Boulder, Colorado, the USA (Simbolon 2016). In selecting participants, this approach used a purposive sampling method or also called judgement sampling (Tongco 2007), since the researcher wants to quickly and conveniently find relevant people or the designated persons meet certain characteristics that form a population (Hibberts et al. 2012: 67), and proportionality (as normally used in quantitative strategy) is not important in this case (Arsovska 2012; Gideon 2012: 400). Participants were divided into two groups: water provider and service users. Water provider participants consist of local government officers and PDAMs people in charge, while service users were the residents. The service users were recruited as participants using snowballing until saturation was reached, in four out of six subdistricts in Nauli City. The participants were given an open-ended questionnaire which will be followed by interviews.
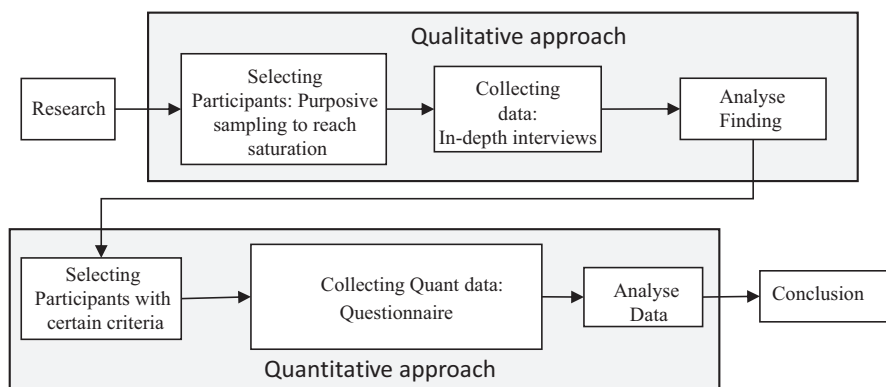
Fig. 18.2 Research design (developed by author)

Table 18.5 Number of questions in the questionnaire

	Condition 10 years ago (before)	Current condition (after)
Technical aspects (11 questions)	BTTotal	ATTotal
Administrative aspects (8 questions)	BATotal	AATotal
Customer satisfaction (7 questions)	BSTotal	ASTotal

BTTotal before-technical-total, *ATTotal* after-technical-total, *BATotal* before-administrative-total, *AATotal* after-administrative-total, *BSTotal* before-satisfaction-total, *ASTotal* after-satisfaction-total

Service user participants included the residents, and they were selected through snowballing until no new information was gathered (Noy 2008).

The second step of the research was based on a quantitative approach. Participants were service users included so that their perspectives about water provision performance for the last 10 years could be included.

Hence, the main criteria to select participants were 'whether the service user had "been connected to piped water service for at least 10 years"', and whether they are living in the four different subdistricts in Nauli City. In 2005 there was only 1 PDAM in Nauli City, the District PDAM, and then the number of population will be the number of customers of the district PDAM in 2005, that is, 24.381 connections (BPS Nauli City 2006).

A close-ended questionnaire was given to them which basically consists of questions about the quality of piped water service delivered by the governments through their water companies. Questions are grouped based on three main categories: technical aspects, administrative aspects, and customer satisfaction, as shown in the table below (questionnaire is attached in appendix) (Table 18.5).

Technical and administrative aspects include the criteria that are used as the basis of PDAM performance audit conducted by the official auditors (BPPSPAM 2014). Technical aspects questions ask the residents about how the water companies provide their technical services like frequency of water flow, water quality, water pressure, and the need for other sources of water. Administrative aspects questions are about how the companies deliver their supporting services like complaint procedure, billing system, and tariff. Customer satisfaction questions are asking how the residents rate the overall performance of the water company(ies) based on the two aspects. Technical and administrative questions are answered with a three-layer Likert scale, Yes, Sometimes, and No, while customer satisfaction questions are with a four-scale Likert, Very Satisfied, Satisfied, Disappointed, and Very Disappointed. The test was conducted to find out whether there has been significant improvement in the three aspects in water provision in Nauli City.

Qualitative data is important to scrutinise the problem in water management in Nauli City especially from water providers' points of view; to understand the context; to connect as many relevant aspects as possible, namely, social, economic, and environmental; and to involve feelings and behaviour that surround the people particularly regarding water scarcity in their area (Bricki and Green 2007: 7; Churchman 1979: 31–4; Cleary et al. 2014; Golafshani 2003; Sugiyono 2012: 292). Hence interviews were conducted first.

Quantitative data from the questionnaire, on the other hand, was used to find out whether the existence of competition has brought significant improvement to water provision in Nauli City (Cohen et al. 2013; Hopkins 2008), and hence the main criteria of the participants are that they have been connected with piped water service for at least 10 years, regardless which PDAM that has served them.

Data Collection

Data collection was conducted in person by the researcher in December 2015 in Nauli City, Indonesia. Participants were divided into two major groups: water providers and water beneficiaries. Water providers are institutions that are obliged or do business in providing or selling water to the people, while water beneficiaries are the people who consume water. The list of participants of water providers is presented in the table below (Table 18.6).

Table 18.6 List of participants

Participant type	Basis for recruitment	No. of sample
I. Central authorities		
Ministry of Public Works (MPW)	Makes policy, manage, and supervise water sector, as well as performing water investment	1 (person in charge)
Ministry of Finance (MoF)	Provides budget for water investment, including water-related grant and loan to local government and PDAM	1 (person in charge)
Ministry of Home Affairs (MOHA)	Supervises all local governments and issuing regulations on PDAM management	1 (person in charge)
National Planning Agency (Bappenas)	Establishes blue print of water development in Indonesia	1 (person in charge)
II. Local authorities		
Local Planning Agency (Bappeda)	Designs and monitors infrastructure development in its jurisdiction	1 (person in charge)
Local Financial Bureau (DPPKAD)	Deals with all financial aspects of its local government, including collecting charges and dividends from water companies	1 (person in charge)
Local Public Works Department (Dinas PU)	Design, executes, and monitors all water-related infrastructure projects	1 (person in charge)
III. Water sellers		
PDAM of Nauli City	Performs water provision on behalf of Nauli Municipality in the City of Nauli	1 (person in charge)
PDAM of Nauli District	Performs water provision on behalf of Nauli District Government in the City of Nauli and the District of Nauli	1 (person in charge)
BLUD SPAM[a]	Performs water provision on behalf of Samsoir Provincial Government in the City of Nauli and the District of Nauli	1 (person in charge)

<div align="right">(continued)</div>

Table 18.6 (continued)

Participant type	Basis for recruitment	No. of sample
DAMIU stalls owners	Sell drinkable water to residents	15 out of 376 population (convenient snowballing)
Water merchants	Sell water to residents	3 out of 5 population (convenient snowballing)
IV. Local auditors (BPKP and/or BPK)	Conduct financial and performance audit to local governments and water companies	1 (person in charge)

[a]Badan Layanan Umum Daerah Sistem Pelayanan Air Minum (Local Body for Water Provision System)

Water beneficiaries were taken from residents only, as they were the ones who will be affected by the water commodification situation in Nauli City. Participants were selected through purposive sampling method or also called judgement sampling (Tongco 2007), since the researcher wants to find relevant persons quickly,[2] and proportionality is not important in this case (Arsovska 2012; Gideon 2012: 400). Recruitment started with two groups of people: religious leaders (a pastor and an ustadz) as Christian and Catholic are the most common religion in Nauli while Moslem comes second and/or community leaders (ketua Rukun Tetangga). Then snowballing was implemented with participants that will be selected from six subdistricts (kecamatan) in Nauli City.

Limitations of the Quantitative Method

However there are some limitations in this quantitative research that should be acknowledged. Firstly, participants will be asked to answer questions based on their memories of 10 years ago. To be more accurate, this has to be a longitudinal study which follow and observe respondents continuously or asked questions in two different point of times, now and 10 years ago.[3] The information can be bias since it was only based on memories. However it is difficult to do longitudinal studies since the time span is 10 years and the length of study is only 4 years.

Secondly, based on the Krejcie and Morgan table, the number or participants for the population of 24,381 customers that have had connections for at least 10 years, with 95% confidence, should be 377–380 participants (Krejcie and Morgan 1970). However this research applies mixed methods which quantitative method is applied to test a hypothesis generated from the findings from the preceding qualitative method. Eventually only 75 respondents were willing to participate due to constraints like time, access, and distance. The participants were selected conveniently through snowballing, and questionnaires were spread out to participants by email, and they were guided to answer the questions through video calls.

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[2] 'Relevant persons' means the designated persons that meet certain characteristics from a population (Hibberts et al. 2012, p. 67).

[3] Encyclopedia of Public Health, 2008.

Findings

What Are the Causes and What Are the Impacts?

To some extent, the way the governments enter water market through companies is in line with what is being suggested by the New Public Management (NPM) theory. The emergence of New Public Management (NPM)[4] has moved the old paradigm of Public Administration towards a more market system and by arguing that efficiency and business style management will improve government management (Christensen and Lægreid 2002; Hood 1991). NPM also argues that the government units will provide better and efficient services if they act like private sector and enter a competition (Walker et al. 2011). And in an NPM model, citizen is seen as 'customer', while government unit is regarded as 'public provider', and customer satisfaction is the objective of providing public services (Aberbach and Christensen 2005; Christensen and Lægreid 2002). When citizens are viewed as customers, then it is very possible that the marginalised customers will be left behind and the high-class wealthy customers can get maximum benefit, as the consequence of the risk society (Beck 1992).

Poor water management and water commodification in Nauli City have occurred due to conflict in water provision between three local governments, City Government, District Government, and Provincial Government, and also between their water companies: the City PDAM, the District PDAM, and the Provincial BLUD SPAM. Through conducting in-depth interviews with relevant source people from related institutions, the conflict can be briefly described as follows (Table 18.7).

By the end of 2015, however, the three companies' water coverage was only 38.17% of the city population, while the rest of 61.83% should rely on nature water

Table 18.7 The chronology of water provision conflict (developed by author)

• Year 1958: Nauli area was officially established as a district called the District of Nauli
• Year 1986: The District PDAM which belongs to the District Government was established and mainly operated in the district's capital city
• Year 1996: The district's capital city was proliferated into a city called the City of Nauli, while water provision was still served by the District PDAM
• Year 2005: The City Government established its own PDAM called PDAM of Nauli City and demanded all of the District PDAM assets to be transferred to the City PDAM. The District Government rejected the request
• Year 2011: The Provincial Government established BLUD SPAM with the aim of managing several large dams that were built by the central government. The main purpose of BLUD SPAM is to distribute the dam's water as raw water for PDAMs surrounding. However the BLUD SPAM started to sell water directly to end user or residents that are outside of both PDAMs coverage

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[4] The NPM is coined by Christopher Hood 1991 in his article 'A public management for all season?'. NPM has been implemented in many developed countries and is strongly supported by the World Bank to be implemented in developing countries (Gadkari 2010; Walker et al. 2011).
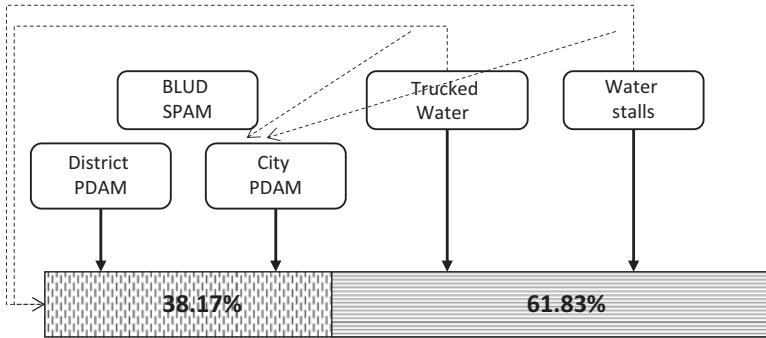
Fig. 18.3 Water mismanagement in Nauli City: The conflict of water provision in Nauli City (developed by author)

Fig. 18.4 Water revenue vs. tariff (developed by author)
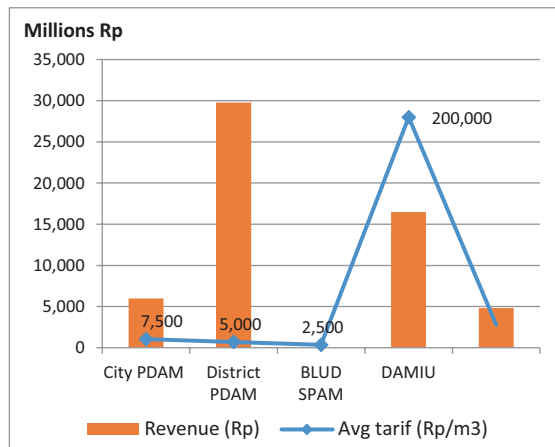
sources (rivers, bore wells, and rain harvesting) and buying water from the water merchants or various unprotected water sources. Water commodification has happened very badly in this city. In general, there were 2 groups of water sellers operated: government-owned water companies (3 companies) and privately owned door-to-door water retailers (5 water truck merchants which delivered water to households with their water trucks, and 376 water stalls which were owned by individual and sold gallon water). In fact, the water companies could not provide enough water to their customers so the people had to buy water from private sellers. The figure below shows the conflict in water management (Fig. 18.3).

The graph below shows the comparison of total volume and total value of water sold in 2014 between water sellers (Figs. 18.4 and 18.5).

This situation has brought several negative impacts to the society in the context of social, economic, and environment. The three water companies were not only unable to cover the whole population but also unable to provide good quality and

Fig. 18.5 Comparison of water volume sold (developed by author)
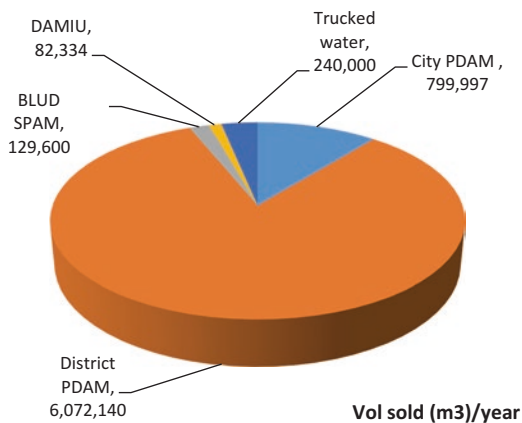
sufficient quantity of water to their customers. According to the Indonesia Ministry of Public Works (2007),[5] the average water consumption per person per day is 144 L. If the total water sold 7,001,737 L by the three water companies in 2015 divided by 144, then the number of people served were 48,623 people, which only 12.43% of 390,877 as the population of the city. It means that 38.17% coverage did not get their right properly in terms of the quantity and continuity of water service.

The residents also found it much harder to access water from natural sources. Bore wells have to be dug deeper—currently 70 m compared to 15 m 10 years ago—to reach water, and the water only appears well during rainy season. Rain water tanks are empty and rivers are also lowered during hot seasons. Indeed there are some spots that have abundant groundwater flowing for the whole year, but they were bought, occupied, and fenced by the water companies and water merchants. Piped water services are also poor. The residents revealed that water did not flow regularly and sometimes once a week or even not flowing at all for months during hot seasons. The billing system is also chaotic. There were many cases where the residents were asked to pay an expensive bill even though they did not consume anything, and the options were court or disconnect.

The quality of water is also very poor. The Local Body for Environment Control of Nauli City has revealed in 2015 that the coliform bacteria contained in water around Nauli City water sources (piped and non-piped) were very high. The coliform index spanned between 5000 and 80,000, while the faecal coliform index spanned between100 and 20,000. According to the Ministry of Health of Indonesia Decree No. 492/2010 and 739/2010, the coliform index in drinking water should be zero. Moreover, the TDS (total dissolved solids) level was also very high in 22 out of 100 samples, which means that water contained very high minerals (calcium, magnesium, sodium, potassium cations and carbonate, hydrogencarbonate, chloride, sulphate, and nitrate anions) which will affect the taste and the appearance of water.

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[5] 'Satu orang Indonesia konsumsi air rata-rata 144 liter per hari' (average water consumption per person in Indonesia is 144 L/day), ciptakarya.pu.go.id, posted 05/03/2007, retrieved 01/08/2017.

The WHO released that good TDS level is between 300–600 mg/L, 600–900 mg/L as fair, 900–1200 mg/L as poor, and more than 1200 as unacceptable. While the Indonesia Ministry of Health Decree stated that for drinking water, the maximum acceptable TDS level is 500 mg/L. The 22% water sample tests showed that the TDS level is between 500 and 4500 mg/L. It was found from the interviews that the people still used the water for drinking and cooking as they did not have other choice.

Can the Piped Water Service Be Improved?

We can ask the question whether piped water can be improved. Conflict in water provision as in Nauli City case is the only one that happens in Indonesia or perhaps in the world. Normally there is only one public water company serving piped water to the society, or whenever there are more than one company, they will divide their service zone and will be strictly regulated by the government like in Melbourne-Australia and Manila-the Philippines (World Bank 2005). However in Nauli City, the water companies operate in the same area and using the same water sources (ground, surface, or dams). Unlike what happened in Melbourne and Manila where there was no competition between water companies, in Nauli City the water companies are competing to connect their pipes to the residents, regardless whether or not the residents have already had piped water connection.

Theoretically, competition will make consumers to be better off, as price will be competitive or the quality of products/services will be improved. This research attempted to find out whether the competition between water companies has brought significant improvement to the residents. The hypotheses are as follows:

H0: Current Condition = Condition 10 years ago
H1: Current Condition/Condition 10 years ago

Questionnaires were delivered to 75 residents who have been connected with piped water service for at least 10 years and located in 4 out of 6 subdistricts in Nauli City. Questions were grouped based on three main categories: technical aspects, administrative aspects, and customer satisfaction, as shown in the Table 18.5 above.

Technical aspects questions ask the residents about how the company(ies) provides their technical services like frequency of water flow, water quality, water pressure, and the need for other sources of water. Administrative aspects questions are about how the company(ies) treats the customers like complaint procedure, payment method, and tariff. Customer satisfaction questions are asking how the residents rate the overall performance of the water company(ies) based on the two aspects. Technical and administrative questions are answered with a three-layer Likert scale, Yes, Sometimes, and No, while customer satisfaction questions are with a four-scale Likert, Very Satisfied, Satisfied, Disappointed, and Very Disappointed. The test will

Table 18.8 Normality test

Tests of normality						
	Kolmogorov-Smirnova			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
BTTOTAL	0.147	75	0.000	0.960	75	0.018
BATOTAL	0.182	75	0.000	0.901	75	0.000
BSTOTAL	0.168	75	0.000	0.926	75	0.000
ATTotal	0.157	75	0.000	0.951	75	0.006
AATotal	0.161	75	0.000	0.901	75	0.000
ASTotal	0.200	75	0.000	0.889	75	0.000

Table 18.9 Descriptive statistics

	N	Mean	Std. deviation	Minimum	Maximum
BTTOTAL	75	24.2400	2.87975	19.00	32.00
BATOTAL	75	16.5333	2.32107	13.00	21.00
BSTOTAL	75	18.5467	3.40625	13.00	26.00
ATTotal	75	23.3733	3.15703	18.00	31.00
AATotal	75	15.7467	3.07603	12.00	22.00
ASTotal	75	17.4000	3.54889	13.00	26.00

be conducted to find out whether there has been significant improvement on the three aspects in water provision in Nauli City.

Before performing the hypothesis test, normality test to the three sets of data through SPSS shows that none of them are normally distributed at confidence level 95%, shown by the 'Sig.' values less than 0.05 as follows (Table 18.8).

Since the data are not normal, a non-parametric test was performed. The Wilcoxon Signed Ranks will be used (Rey and Neuhäuser 2011) with confidence level 95%. Through SPSS, the results are as follows.

Table 18.9 shows the means of each set of data. It appears that all 'after condition' means (AT, AA, and AS) are lower than all 'before condition' means (BT, BA, and BS). It means that the residents are on average tend to give higher valuation for all aspects 10 years ago compared to current condition. This fact is confirmed by figures shown in Table 18.10 'Ranks'. Negative ranks means that 'after condition' is lower than 'before condition', positive ranks means 'after' is higher than 'before', and ties means they have similar value. For technical aspects (ATTotal−BTTotal), 41 people are in negative ranks, meaning that they feel the condition 10 years ago was better than the current condition; 30 people are in ties, while only 8 people felt that now is better than before, which means that only 8 out of 75 samples felt that current condition is more satisfactory than 10 years ago.

For administrative aspects (AATotal−BATotal), 41 people are in negative ranks, 5 people ties, and 25 people positive. If we combine negative and ties, then we can say that only a third of the samples that felt current condition is better. For overall customer's satisfaction (ASTotal−BSTotal), 35 people are in negative ranks, 32 people in ties, and only 8 people are in positive ranks.

Table 18.10 Test statistics[a]

		N	Mean rank	Sum of ranks
ATTotal−BTTOTAL	Negative ranks	41[b]	21.00	861.00
	Positive ranks	4[c]	43.50	174.00
	Ties	30[d]		
	Total	75		
AATotal−BATOTAL	Negative ranks	41[e]	36.71	1505.00
	Positive ranks	25[f]	28.24	706.00
	Ties	9[g]		
	Total	75		
ASTotal−BSTOTAL	Negative ranks	35[h]	22.89	801.00
	Positive ranks	8[i]	18.13	145.00
	Ties	32[j]		
	Total	75		

	ATTotal−BTTOTAL	AATotal−BATOTAL	ASTotal−BSTOTAL
Z	−3.924[k]	−2.614[k]	−3.994[k]
Asymp. Sig. (2-tailed)	0.000	0.009	0.000

[a]Wilcoxon Signed Ranks Test
[b]ATTotal < BTTOTAL
[c]ATTotal > BTTOTAL
[d]ATTotal = BTTOTAL
[e]AATotal < BATOTAL
[f]AATotal > BATOTAL
[g]AATotal = BATOTAL
[h]ASTotal < BSTOTAL
[i]ASTotal > BSTOTAL
[j]ASTotal = BSTOTAL
[k]Based on positive ranks

Tables 18.9 and 18.10 show that current condition is different with the condition 10 years ago. To know whether the difference is significant, we take a look at Table 18.8 that shows that the significance (Sig) value for technical aspect is 0.000, administrative aspect is 0.009, and satisfaction is 0.000. It means that with level of confidence 95%, all aspects in current condition are significantly different from those of 10 years ago, and then we reject the null hypothesis and accept the alternative hypothesis.

Combining Tables 18.8, 18.9, and 18.10 enables interpreting that the conditions are significantly different; however it is in a negative manner which means that the current condition is significantly worse than that of 10 years ago. This can be proven by the fact that total water sold in 2005 was higher than 2015, while the number of customers increased significantly as shown in the table below (Table 18.11).

In 2005, assuming that water was distributed evenly to every connection, each connection could enjoy 303.5 m^3 per year or 831 litres per day. However in 2015, each connection could only get 172 m^3 per year or 470 litres per day. This figure can briefly explain how piped water could not meet the needs of the customers in terms of the quantity provided.

Table 18.11   Total water sold compared to population in 2005 and 2015 (BPS 2005, 2015)

	2005[a]	2015[b]
City population (people)	265,050	390,887
Number of customer (unit)	24,381	40,784
Total water sold	7,398,864	7,001,737

[a]One company (the district PDAM) (BPS 2006)
[b]Three companies (data from interviews with the water companies staffs)
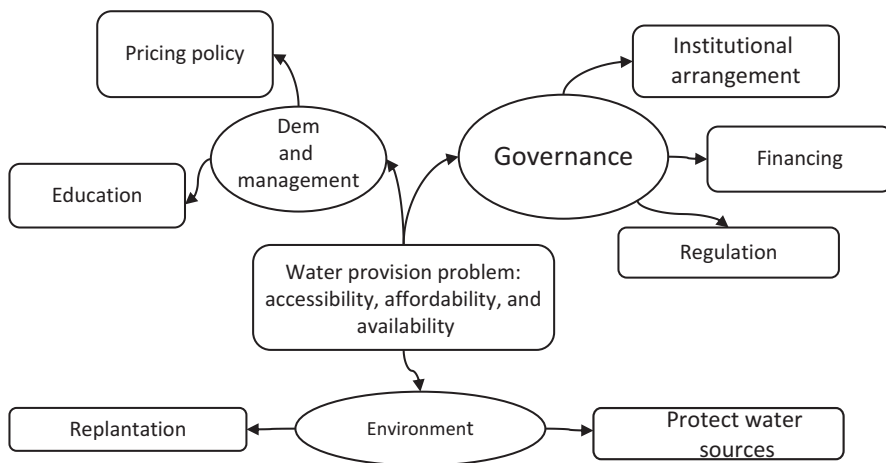
Fig. 18.6   The roots of water mismanagement (developed by author)

What Next?

Social boundaries need to be drawn based on expanding pragmatism from narrow competition to considering the consequences for others and future generations of life (McIntyre-Mills 2014).

Expanded pragmatism is based on expanding the consideration of the consequences in the short, medium, and long term for self, others (including sentient beings), and the environment. It is non-anthropocentric (McIntyre-Mills 2014). McIntyre-Mills (2014) also stresses that the elected government should realise that it is its obligation to serve the people and it needs to be expanded to consider the rights of the next generation (2014: 9). The findings show that basically the wicked problem in Nauli City water mismanagement causes are rooted in social, governance, and environmental issues, as pictured in the below figure (Fig. 18.6).

Osborne and Gaebler (1992: 25) by using the famous expression 'steering rather than rowing' claimed that in implementing the NPM, the government should not involve too much in providing public services, because the government is not too good at it. Then Denhardt and Denhardt (2000) came up with New Public Service and challenged the NPM by saying that the government should be 'serving rather

than steering', since the government should not change the direction of the boat, but, instead, 'to serve and empower the citizens'. Moreover, it is the citizens who own the government, and administrators should treat citizens as active citizens, which means 'citizens rule and are ruled in turn' (King et al. 1998) and citizens do have the right to fulfil their basic needs and to have welfare, and it is one of their basic rights (Marshall 1950; Ulrich 2003)[6].

Regional governments that are currently providing water provision in Nauli City have to turn their objective back to the constitution that water should be utilise for the maximum benefit of the people, not for profit making. The UN World Water Council in the World Commission on Water for the Twenty-first Century Report stresses that governments, national and local, are enablers who establish effective and transparent regulations with good political will, even if the issues are beyond or across borders. Governments should not shirk their responsibilities to ensure all people including the poor can have adequate access, even when full-cost pricing is applied (Serageldin et al. 2000). The report also stresses that partnerships between governments and also all stakeholders are vital supported by the governments crucial role to create conducive environment.

Looking at the fact that chaotic and unregulated competition has happened in water provision in Nauli City, a new institutional arrangement should be formulated through a win-win partnership between governments or a public-public partnership (PUP). PUP is a cooperation between public authorities and organisations to improve efficiency and effectiveness of service delivery within or across borders based on unanimity and avoid profit seeking (Hall and Lobina 2006). Unlike the Public Private Partnership Approach (PPP) collaboration between governments could prevent complexities and conflicts in regulations and could establish a better pricing system (Hall et al. 2009).

In the case of Nauli City, the District, City, and Provincial Governments should establish a mutual partnership based on the Indonesian constitution that stresses the need for providing water to meet the needs of Indonesians and ending the competition. This approach could create stronger financing and better regulation to support investment costs.

Water companies with strong coordination could focus their operation to serve the people better, and they could use regulated profits to progress their business model. This mechanism has had success story in Phnom Penh (Chea 2007), South Africa (Pape 2001), and also in Indonesia in North Sumatera Province (FGS 2010).

Demand Management

Experts claim that both population and lifestyle can affect water consumption. The government should ensure that water is delivered properly to all residents; however demand management is also in order to encourage the most efficient and effective

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[6] Marshall (1950) in Citizenship and Social Class and other essays described three basic rights of citizens: the right to freedom of speaking, the right to participate in politics, and the right to have social security, economic, and welfare.

Table 18.12 The direct and indirect drivers of water-saving behaviours (developed by author)

Direct drivers	Indirect drivers
Climate/seasonal variability	Person characteristics (e.g. subjective norm, behavioural control, attitude towards the behaviour)
Incentives/disincentives (e.g. tariff structure and pricing, rebates on water-saving technologies, etc.)	Institutional trust (i.e. trust in the water provider) and interpersonal trust (i.e. trust in other consumers)
Regulations and ordinances (e.g. water restrictions, local government planning regulations)	Fairness (i.e. in decision-making processes, water restrictions, tariffs, new pipelines)
Property characteristics (e.g. lot size, pool, bore, tank, house size, house age, etc.)	Environmental values and conservation attitudes
Household characteristics (e.g. household composition, household income, water-saving technology, water supply technology)	Socio-economic factors (e.g. income, household composition, age, gender, education, etc.)
Person characteristics (e.g. intention to conserve water, knowledge of how to conserve water)	Intergenerational equity

Source: The table is from Jorgensen et al. (2009)

way to consume limited resource (Savenije and Van Der Zaag 2002). Demand management is not about controlling the demand to meet limited supply, but more broadly is about to supply water to achieve trans-generation equity and environmental integrity (Savenije and Van Der Zaag 2002). This is important as according to the Nauli City Water Provision Master Plan (RISPAM),[7] total water supply capacity needed for year 2020 will be 723 L/s, consisting of 629 L/s or 87% for domestic uses and 94 L/s or 13% for nondomestic (commercial) uses.

Jorgensen et al. (2009) explain that demand management strategies have been introduced through pricing and non-pricing policies. Jorgensen et al. (2009) also identify several direct and indirect factors that drive water behaviours as follows (Table 18.12).

For pricing policy, Rogers et al. (1998) explain that the cost of water comprises of two elements: supply costs (O&M and capital costs) and environmental costs (externalities, for instance, because of diversion of water flows, water pollution, building dams, costs to public health, and ecosystems). There should be another element that has to be covered in the total costs of water: social costs, which means the cost to provide water to the poor, remote, and marginal people. These three elements should be reflected in the cost structure of water and translated properly into the pricing policy (Fig. 18.7).

For non-pricing policy, people's behaviour towards water consumption is determined by their perception about water. Harvey and Miceli (1999) defined externalities occur when one decides to do an action that can harm others, without considering the impact of that action or even trying to compensate the result. Hardin (1968) explains that the 'tragedy of the commons' (TOC) happens because of externalities, when one uses or consumes a common good (the planet) excessive of his/her 'pro

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[7] Source: Public Works Department of Nauli City, 2015.

| Environmental Costs | |
| Externalities: Public Health and Ecosystems | |
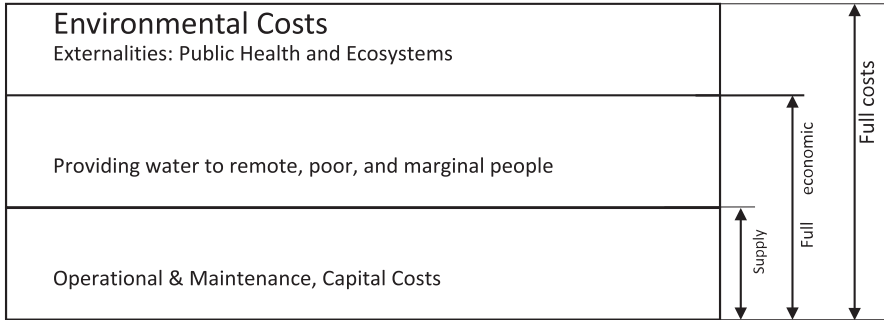
Fig. 18.7 Three elements of costs of water (adapted from OECD (2010))

rata' needs. It involves behaviour. This attitude will indeed affect other people, the environment, and eventually the person him/herself. Jorgensen et al. (2009) claim that a number of studies found out that pricing policy is not always effecting water use decision-making in the long run. Instead, education can have significant influence to change the people's mind-sets to conservational behaviour (Davis 2015; Samuelsson and Kaga 2008).

Environment

The central government has built large dams to overcome water scarcity problem in Nauli City and surrounding areas. There are three big dams that are built or in progress: Tilong, Raknamo, and Kolhua. Tilong and Raknamo which are located in the district area have been built and operated, and they supply water for drinking and electricity mostly to Nauli City area, while Kolhua is planned to be located in the city area. However Biswas and Tortajada (2001) and Biswas and Tortajada (2010) revealed that despite a number of positive impacts that can be gained from dams, disadvantages may occur as well. Biswas and Tortajada (2001) claim that there has been no proper study that has been conducted to examine the real economic, social, and environmental impact on building large dams. What are the costs and who bear them, or what are the benefits and who gain them? There were only anecdotal stories told by proponents that dams have helped to increase GDP and per capita income or by the opponents that dams have caused unfinished resettlement problems, environmental degradation, and even conflicts between regions (Kingsford 2000; Milliman 1997). Biodegradation is not sustainable said Gunter Pauli in his report to the Club of Rome in 2009.[8]

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[8] Gunter Pauli report to the Club of Rome, November 2009, https://www.youtube.com/watch?v=oYtSILPBR44, retrieved 18 September 2017. See the available case studies at https://www.theblueeconomy.org/.

Table 18.13 Total open space in Nauli City 2005 and 2015 (BPS 2005, 2015)

	2005 (Ha)	2015 (Ha)
Wet land	1.23	0.38
Dry land (include unused open space)	4.86	2.86
Total	6.09	3.25

The residents revealed that it became harder to get water from the bore well which means that groundwater table is lowered from time to time. Over-depletion of groundwater can cause some negative impacts such as drying up wells that are currently happening, worsening water quality, sea water intrusion, lowering water in rivers and lakes, and even land subsidence (USGS Water Science School 2017),[9] and Jakarta land subsidence is just one example (Abidin et al. 2001).

Groundwater can be controlled and recharged (Thangarajan 2007). However USGS (2017) argues that aquifer is like a bank account that withdrawal should be less than replenishment. Patel and Shah (2008: 27) mention that groundwater condition depends on several factors: rainfalls, topography, vegetation cover, evapotranspiration, and water-bearing properties of rocks and soils. In terms of vegetation cover, Patel and Shah (2008) state that replanting and manipulation of vegetation cover can minimise water losses or runoffs, increase water yield, and prevent evaporation to almost 16.5%. Meanwhile recharging groundwater can also be done by flooding a relatively flat area so it can be absorbed into the soil (2008:78).

The Statistical Body of Nauli City has recorded that from 2005 to 2015, the open space in Nauli City area has shrunk by half as shown in the table below (total area of Nauli City is 18.03 ha) (Table 18.13).

The decreasing water catchment area with very little wetland and savannah as the most typical open space in Nauli City has spurred runoffs of rainwater and high evapotranspiration as well. Replanting the land should be included in the main strategy of water conservation in Nauli City. However, the arid condition of the area has made trees difficult to grow in the savannah. The land should be fertilised, and according to the CSIRO, it needs carbon.[10] The carbon should be captured and restored to the soil, called the carbon sequestration, and it can best be done by replanting trees (Jandl et al. 2007; McCarl et al. 2007).

The most common tree in Nauli City is the lontar tree or *Borassus flabellifer* that is grown very well in savannah area (BPS 2015). According to Marlistiyati et al. (2016), a hectare of lontar tree with average 30 cm of diameter can absorb 72.3 tons of carbon per year. For comparison, a tropical agroforestry system can sequestrate 95 tons per hectare per year (Dombro 2011)[11]. Marlistiyati et al. (2016) claim that according to the Forestry Research Body of Nauli City, the population of the lontar

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[9] The USGS Water Science School, Ground Water Depletion, https://water.usgs.gov/edu/gwdepletion.html, retrieved 17 September 2017.

[10] Commonwealth Scientific and Industrial Research Organisation (CSIRO), http://www.csiro.au/outcomes/Environment/Australian-Landscapes/soil-carbon.aspx, retrieved 20 September 2017.

[11] Website: http://www.tree-nation.com, retrieved 20 September 2017.

trees in Nauli City area has been shrunk dramatically for the last 50 years from more than 60,000 in 1950s to only 30,000 trees in 2015 due to the rapid development of the city area.

Recovering the land by replanting trees will surely help to accelerate groundwater recharging and avoid evapotranspiration and the release of soil carbon to the atmosphere which means improving the quality of the soil. The more fertile the soil, then the easier it is to be planted, which eventually will improve the quality of the land. Good aboveground vegetation will improve water purity and can help to capture and store water (Ernst et al. 2004). This is also important considering the fact that 20 out of 22 water sources used by the water companies are groundwater, and the other non-piped water residents depend on the availability of groundwater as well.

Conclusion

The UN's Millennium Development Goals in 2000 (Goal Number 7) which is continued through the Sustainable Development Goals in 2015 (Goal number 6) has one of their targets in water which in principal is to provide sustainable water for all which is available, accessible, and affordable. Water management problem should be regarded as a wicked problem and ought to be seen from several related perspectives. In the case of Nauli City, its water management problem should be addressed from at least three aspects: governance, demand management, and environment.

First of all, a proper institutional arrangement should be established to find a win-win solution for political, economic, and financial aspects which is likely to end conflicts and determine the direction of the water management strategy. Secondly, it is important to study and examine how the demand for water works and the direction of effort to control water management. In Nauli City, domestic warmer use of piped water was the biggest proportion compared to industry, while there is still no documentation about how much water is used for agriculture. Finally, the water management strategy should focus on preserving the environment and ensuring that water catchment areas are revegetated and protected.

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Chapter 19
Fostering Ecological Citizenship Through Recognising Non-Anthropocentric Right to Habitat

Janet McIntyre-Mills

Abstract Protecting human beings (including sentient beings) requires protecting our shared environment. The paper makes a case for non-anthropocentrism and for extending rights to human and other animals based on their individual sentience. Simultaneously, it makes the case for protecting their diverse habitats in order to provide the means for sustaining and regenerating multiple species. Sentience linked with compassion is a hallmark of humanity and higher-order animals. Empathy, fairness and reciprocity are pillars of morality and co-operation, according to De Waal and linked with our evolution. They are the basis for fostering an emotional connection with other species and the basis for developing Bateson's notion of 'Steps to an ecology of mind'. The case hinges on ethical appreciation of diversity, hybridity and interconnectedness supported by a new form of monitoring to protect diversity, based on extending protection to those who are currently unprotected by the social contract, who happen (by a role of the dice) to be born to a category that remains outside the mantle of protection. Firstly, it extends the argument based on the notion of intrinsic rights and extends De Waal's so-called the tower of morality to other sentient beings. Secondly, it develops an argument for ecological citizenship rights and stewardship responsibilities to protect other species and biologically diverse habitats on which we depend as co-dependent living systems.

Keywords Ecological citizenship · Social contract · Non-anthropocentrism · Capabilities · Sentient beings

A version of this chapter has been sent to Global Ethics for consideration in 2018.

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Introduction

Climate change will displace a host of species in the next decade (Stern 2007) because of food and water insecurity. The Intergovernmental Panel on Climate Change (IPCC) formula suggests that the privileged urban lives of some could lead to 'existential risk' for people and the planet (Bostrom 2011). New forms of global ethics need to address human consumption and to curtail the right to consume. The human minority of 1% (Stiglitz 2011) should not have the right to override the rights of current or future generations of living systems. As Cochrane and Cooke (2016) stress, fate determines one's species membership, and it determines one's life chances. Fate also determines our race, gender, abilities and cultural affiliations and then determines whether our parents will be incarcerated at the Mexican border or whether we will lose contact with our parents, because we are too young to tell our name to the authorities.

Fate also determines whether we are creatures that can be commodified as 'live meat' and trapped on an unventilated ship.

The responsibility as human species to act as stewards is overdue. IPPC formula (2013) stresses that the excessive consumption of energy resources affects the size of our carbon footprint. The energy footprint in turn creates cascading social, economic and environmental risks.

The footprint is defined in terms of: E (Emissions) = Population × Consumption per person × Energy Efficiency × Energy Emissions. It suggests that the privileged lives of some living lavish urban lifestyles consume a range of resources that pose an 'existential risk' to all forms of life on the planet (Bostrom 2011). Consumption based on living simply and ethically and well versus consumerism to express status is based on very different values, and they have very different consequences for others and for the environment.

Some human beings today are consuming resources at the expense of the majority in this generation and the next. Just as democracy evolved from the ancient Greek version that excludes women and slaves, democracy needs to evolve to include the rights of those who are currently excluded by the social contract. International global rights need to protect animals and their habitat. One cannot be achieved without the other. In striving for this goal, we may also help to address the 'existential risks' (Bostrom 2011) that we currently face as a result of our anthropocentrism. Bela Banathy made a plea that we should learn 'not to make caterpillars go faster' and instead we need to realise our potential for transformation (Banathy 1991 in Norum 2001: 330).

Haraway (2016) stresses that individualistic responses and consumerism are no longer viable. She addresses the challenges of capitalism, extreme consumption and anthropocentrism by stressing the need to redraw the boundaries of what is acceptable and unacceptable. Clearly, the powerful make decisions to consume at the expense of the powerless. Human rights need to be regarded as intrinsic rights, but solidarity needs to be extended to other animals and our shared environment as a right and a responsibility of all human beings.

Sentient animals need to be given rights linked with appropriate habitats to protect living systems. The notion that it does not matter to destroy natural habitat or to inflict pain on those without a voice or the power to vote is the Achilles heel of the current system of democracy and governance.

The systemic focus builds on the body of work developed in the Contemporary Systems Series (McIntyre-Mills et al. 2017; McIntyre-Mills 2017a, b). It is based on being mindful of the need to design policy that supports living systems (Wadsworth 2010). 'Ecological citizenship' needs to ensure that the requisite variety (Ashby's Rule 1956) is extended beyond consideration of anthropocentric systems to non-anthropocentric living systems and to ensure that stewards protect habitat. The research seeks a better balance across social, cultural, political, economic and environmental interspecies concerns to ensure a sustainable future for current and future generations.

The Limitations of the Social Contract

De Waal (2009, 2006a, b: 164) stresses that this requires addressing the so-called tower of morality and extending the circle of human morality and solidarity from 'self, family, clan, community, tribe, nation, humanity, all life forms' in order to protect resources for all. This paper begins where a paper on hybridity and interconnectedness ends (McIntyre-Mills 2017b):

> The focus on anthropocentric humanism and human rights has led to an unethical divide or boundary between the *human and the animal* (Irvine 2007; Stanescu 2012). The human being is seen as the controller of nature. But the divided nature of *control and compete* is only one part of the story. The continuum of relationships with nature and with animals needs to be seen as co-evolving. *Cooperation and nurturing* are the other side of the story. We need to recognise the connections across the stereotypical feminine and masculine principles of empathy and connecting versus conflict and competition, and that these approaches to social engagement are both important for evolution (De Waal 2009). The idealist argument by Nussbaum (2006) argues for the right of sentient beings to a quality of life worth living based on their *intrinsic* rights to exist. Recent research on the capabilities of primates and other animals demonstrates that Aristotle's work needs to be expanded to show more solidarity with other creatures, some of whom can indeed understand the difference between fairness and unfairness (De Waal 2009). If animals can understand fairness and unfairness and are capable of empathy, then surely it is time to rethink the social contract, which is far too narrowly defined. The social contract extends rights and expects responsibilities to be fulfilled in return. But what about those who are voiceless, disabled, too young or without citizenship rights?

De Waal (2009) stressed that primates evolved through both the ability to compete and to co-operate. He stressed the importance of emotion and empathy for evolution in *The Age of Empathy*. He explains that the pillars of morality are empathy and reciprocity. Animals such as primates and elephants (and other sentients) are capable of making decisions based on a sense of fairness. Recent research at Stanford University shows how primates who are asked to perform specific tasks react when

they perceive that some are expected to perform the same task but are given different better tasting food as a reward. Researchers found that the primates threw the food back at the researchers.

Shanor and Kanwaal (2009) and Sharpe (2005) have also shown that animals are capable of showing compassion within and across species. Unfortunately Huxley, Darwin's colleague, emphasised competition not co-operation when he discussed Darwin's research. The point I want to make is that both rational and emotional dimensions are important for ethics. Humans evolved from primates, and we share the capacity for empathy, reciprocity and fairness. In fact, we evolved through our ability to co-operate and not only to compete (De Waal 2009). Thus, the emphasis is on developing a new basis for transforming the way in which we live. The emphasis needs to be on what we all share in common, namely, the need for food, energy, water, safety and the capabilities to live a good life. This is stressed by Nussbaum (2011) who uses the concept of capabilities and wisely avoids too much emphasis on culture per se. The social contract extends rights and expects responsibilities to be fulfilled in return. The notion of human rights extending to include a form of ecological citizenship needs urgent attention, given the rise in number of displaced people internationally (Caney 2005).

The notion that reciprocal rights should only be given to citizens who are useful has been successfully critiqued by Nussbaum (2006) who stresses that the way it has been used does not follow the intention of Rawlsian philosophy based on the notion justice as a form of fairness based on the 'veil of ignorance' which helps us to make decisions by which we would be prepared to abide if they were applied to our own lives. This basic notion of fairness should be applied in all contexts if justice is to be achieved.

To build on a point made by Cochrane (2012), shared interests go beyond usefulness as the fact that a group of human beings have a shared interest to earn money from dog fighting, racing greyhounds, and cock fighting does not place their anthropocentric desire to profit above the rights to creatures to be treated in a way that enables them to live a life worth living.

In order to address shared interests and an ability to balance individual needs and interests with collective needs and interests, it is necessary to cultivate Bateson's (1972) notion of 'Steps to an ecology of mind'. This is discussed in more detail below.

Stanford research on non-anthropocentric approaches to fairness and unfairness shows that primates and other animals understand the concept of the fair distribution of resources and that a sense of morality and reciprocity guides the behaviour of primates and other animals (including human animals). I also draw on Frans De Waal (2009) who stresses the need to recognise that we evolved not only through our ability to compete but through our ability to co-operate and to show empathy to others and a shared sense of cross species community. Cross species rights are necessary for transformation to a more ethical way of life and for our collective survival.

The Potential of Capabilities to Address the Rights of Sentient Beings and Mindfulness of Our Interconnectedness

Nussbaum (2006) discusses the essential capabilities that are needed by sentient beings to live a life worth living in *Frontiers of Justice* in which she makes a case for extending rights beyond the human. She discusses the current limitations of social contract theory to protect those who fall outside the boundaries of the nation state or outside the parameters of state protection as they are non-citizens. These include asylum seekers, those who have lost citizenship because they are labelled criminal and 'other', the disabled, and she importantly extends protection to all sentient beings and the need to protect the environment on which we all depend. In this Nussbaum (2006, 2011) introduces protection of habitat for all living systems, although she does not specifically spell out our hybrid interdependency.

According to Cochrane and Cooke (2016: 113):

> …cosmopolitans regard ultimate moral value as residing in individuals and their basic rights. By recognising that sentient animals also share this value and also share these basic rights, we are essentially extending the shared moral community to include all sentient creatures. In other words, it is sentient individuals who have ultimate value—not the collective institutions and associations that have been built around them.

Nussbaum (2006, 2011) defines capabilities and makes a case for extending rights to the defenceless based on the individual. Whilst the individual is important, the challenge is to balance individual and collective needs. The starting point is to consider capabilities and to ensure that human capabilities encompass the critical ability to balance the individual and collective interests (McIntyre-Mills et al. 2017). The capabilities approach is a starting point for arguing that all sentient beings have a right to a life worth living. It is an argument based not only on the ideal of respect for others and the hope of reciprocation but instead based on the notion that human beings are part of an interconnected living system. With the exception of capabilities 9 and 10, the following capabilities apply (at least to some extent to all sentient beings). To draw on and adapt, the ten capabilities are as follows:

1. **Being able to live a life worth living**. Not dying prematurely or 'before one's life is so reduced as to be not worth living'.
2. **Physical health** requires being nourished; to have adequate shelter and decent living standards. According to the World Health Organization (WHO 2019), health is 'a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity'.
3. **Bodily integrity**. Being safe and free of abuse.
4. **Emotions.** Being able to have attachments; to love those who love and care for us.
5. **Affiliation**: the ability for people to create sense of belonging to others (including other species such as animals and plants) and to institutions.
6. **Other species**. Being able to live with concern for and in relation to animals, plants and the world of nature.

7. **Re-creation and play.** Being able to enjoy recreational activities.
8. **Exercise agency and freedom** in an appropriate environmental context or habitat niche.
9. **Senses, imagination and thought**. Being able to use the senses; to imagine, think and reason; and to actively engage in protecting other species and habitats that foster wellbeing.
10. **Practical reason to support stewardship.** Being able to form a conception of the good and to engage in critical reflection to balance individual and collective needs.

I have deliberately reordered Nussbaum's capabilities so that higher-order senses and practical stewardship are placed last. The capability to co-operate behoves human beings to act as stewards to ensure our mutual survival along with other living systems.

Capabilities cover a life worth living and provide the conditions for bodily health, bodily integrity and enabling senses (as opposed to sensory deprivation). In the case of higher-order sentient beings, imagination and thought need to be fostered along with the critical capability to balance individual and collective needs. All domestic, farm and wild creatures need to live lives where they are not deprived of the right to express their animal capabilities. Higher-order sentients need to be able to live lives in which emotions are not denied and they need to be able to connect with other species. They also need to be able to express ideas and to engage in public life based on practical reasoning. The capability to engage in re-creation and a form of play is also important, according to Nussbaum. Finally, it can be added to Nussbaum's capabilities that higher-level sentients need to be stewards to ensure that the environment remains a viable habitat for this generation of living systems and the next.

Nussbaum (2006) stresses that the social contract does not go far enough. The notion that the mantle of citizenship should only be given to those of voting age and with the right to cast a ballot is problematic. Historically women, slaves and specific indigenous groups were excluded. Today young people, the disabled, some prisoners, asylum seekers, refugees and all non-human animals are excluded from citizenship. The environment on which they depend is also entirely controlled by the voting citizens of nation states.

In *Frontiers of Justice*, Nussbaum (2006) develops an argument for extending the social contract to those who are not protected. Her starting point is to stress the need for individual capabilities to be protected, in order to be able to live a life worth living. Her argument includes being able to live in an environment that supports a life in which capabilities can be achieved.

Current debates hinge on whether cosmopolitan universal rights can be given to sentient beings as whole or whether rights for human sentients and animal sentients should differ. Donaldson and Kymlicka (2011) link rights to habitat. This seems sensible, and it is possible to combine the approach outlined in *Zoopolis* with matching rights to species and appropriate habitat. Thus, the citizenship of domestic animals living in the household may be closer to the citizenship of human sentients. The rights

of farm animals to a life worth living and a compassionate end to life would require a different approach. For those of us who are vegetarians or vegans versus carnivores, the rights of farm animals would be contested. Similarly, the rights of liminal creatures that share our city environments need to be protected, and the so-called nuisance factor should not be allowed to override the interests of other species. The lack of tolerance, let alone hospitality to other species facing the challenge of urban sprawl, has resulted in displacement, loss of territory and species extinction. We make these decisions at our peril. Without bees and other pollinators, for example, we face food insecurity on a scale that could pose an existential risk (Woodcock 2016).

The challenge we face is to achieve a balance between the individual and collective needs of living systems of which we are a strand (McIntyre-Mills 2017a) and to find a practical way to 'operationalise the capabilities' approach through taking local indigenous wisdom and experience into account (Yap and Yu 2016).

To what extent current structures of democracy and governance are adequate for protecting the rights of sentient beings and appropriate habitats to support lives that are worth living? In *Zoopolis* the argument that animals need to have their rights protected is explored by Donaldson and Kymlicka (2011) who link rights to different spaces—the domestic and agricultural, the liminal spaces in cities and towns that we share with other animals and wild spaces. Current arguments for citizenship rights for animals (Donaldson and Kymlicka 2011 and Edmundson 2015) need to take on board the current limitations of citizenship rights. As Nussbaum stresses citizenship (as it is currently applied) does not protect the rights of all sentient beings unless they are of voting age, they have not committed a felony and they are recognised by the state as citizens.

In an increasingly interdependent world, climate change results in the displacement of people in numbers greater than those displaced during the Second World War, according to the previous António Guterres, UN High Commissioner for Refugees (2017). McLeman (2018: 150) stresses that climate change will result in rising sea levels, and it:

> …raises the spectre of trapped populations: large numbers of people unable to move away from areas that should be abandoned without external assistance (Black et al. 2013) These people will include the rural and urban poor, especially single-parent households, and people who are elderly, infirm, unwell, or lack mobility. … entire sovereign nations may one day physically cease to be habitable is a situation for which there is no precedent in modern history.

Unless habitat is protected through global ethics buttressed through law, multiple species extinctions will become increasingly inevitable.

Current Case Studies of Sentient Beings Without Rights

The paper refers to current examples that were widely discussed in the media at the time the paper was written. The juxtaposition of these cases will provide the basis for making a case for protecting sentient beings and that the social contract needs to

be extended to protect the voiceless. The emphasis is on the need for reframing what constitutes global ethics and what this entails for social and environmental justice. The thinking, practice, protests and advocacy globally for the protection of capabilities need to go hand in hand with the protection of the rights of the earth. An appreciation of the 'Steps to an ecology of mind' (Bateson 1972) is long overdue. In the preface of her book *Upheavals of thought*, Nussbaum (2001) poses the question as to whether emotions can be regarded as a prompt for ethical judgements:

> Emotions shape the landscape of our mental and social lives. Like geological upheavals in a landscape, they mark our lives as uneven, uncertain, and prone to reversal. Are they as some have claimed, animal energies or impulses with no connection to our thoughts? Or are they rather suffused with intelligence and discernment, and thus a source of deep awareness and understanding? If the latter, the emotions cannot be sidelined in accounts of ethical judgement, as they often have been in the history of philosophy.

Inherent Rights

The first case study addresses the notion that those who are non-citizens need to be protected through international organisations that supersede national interests. The fact that the USA has decided to withdraw from being a signatory to International Council of Human Rights underlines the importance of the point made by Cochrane and Cooke (2016) that in some instances where interests of some are being addressed at the expense of others, intervention is warranted. A further point is that the growing gap between rich and poor internationally and within the USA needs to be acknowledged (Stiglitz 2012; Sampathkumar 2018; Pilkington 2018).

Children of asylum seekers are in need of special attention in terms of global ethics. The removal of children from their parents at the border between the USA and Mexico is a case in point. The separation of children from parents at the USA border (Laughland 2018) and the placement in cage-like structures is a traumatising experience for children that is likely to scar them for life, according to commentators who had experienced incarceration during the Second World War. The United Nations has commented that the actions could amount to torture (Smith 2018a, b). Local and international outcry has resulted in a reversal of the decision to separate children from parents (Australian Broadcasting Corporation, 24th June 2018), but the challenge to restore children to parents and to find a long-term solution remains problematic.

The notion that children can be separated from parents or incarcerated for long stretches of time has been described as a form of 'institutionalised torture' in the above-mentioned ABC report.

The scenes of separation of children at the Mexico border were described as reminiscent of scenes during the Second World War where children and adults were 'sorted' in terms of their usefulness for the war effort in concentration camps. Slave labourers who were deemed useful lived longer than those who were considered useless. Being perceived 'useful' overrode intrinsic rights.

Jerry Nadler[1] gave an impassioned plea saying: 'These children are not animals'. Whilst I sympathise greatly with his sentiments, human beings are indeed animals who also require the right to a life worth living and whose inherent rights ought to be protected. Drawing boundaries between species and those classified as citizens and non-citizens is problematic. Particularly in a context where human rights violations can be ignored as national sovereignty supersedes international human rights in the USA at the time this paper was written.

At the time this paper was completed, the separation of more than 2500 immigrant families has been contested by American public, and the Trump administration has started to reunite families. Nevertheless, the process remains chaotic as holding cells of adults are under resourced resulting in conditions that do not meet the most basic needs of parents, such as the provision of water and maintaining a reasonable temperature in holding cells that have been dubbed 'iceboxes' as a result of the industrial style cooling system, according to Johnson who cites Padilla (26th July 2018):

> Water at holding centres was so scarce, some migrants resorted to drinking toilet water, said Padilla, a 24 year old asylum seeker from Honduras…Her odyssey included multiple stops at facilities near the border before she was finally reunited… with her son, who was brought to a shelter in New York.

The second case addresses the decision to suspend the license of one of the companies involved in live animal export. This limited victory does not address the underlying issue of the need to protect the rights of sentient beings and their habitat.[2] The shipping sheep by Emmanuel from Australia to the Middle East for slaughter raised an outcry because of a whistle blower who exposed the plight of sheep dying of thirst and heat. The issue of animal rights and human cruelty ought not to be lost in xenophobic blame of the countries importing the animals. Nor can the blame be simply localised as problems associated with specific companies. By narrowing the terms of reference as company-related problems associated with old or faulty equipment used for transporting the animals misses the point. The cruelty of long-term incarceration will not be alleviated with better equipment or the temporary ban on the license (Worthington 2018) of a few companies that are singled out for attention because of public outcry by those affected by the terrible images of suffering.

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[1] https://www.theguardian.com/us-news/video/2018/jun/19/these-children-are-not-animals-us-house-decries-separation-policy-video

[2] Swartz, D 2018. Australia's largest live sheep exporter Emanuel Exports' license suspended. Report posted on Australian Broadcasting Website. Accessed 26th/06/2018. See http://www.abc.net.au/news/2018-06-22/emanuel-exports-licence-suspended-abc-understands/9900268: 'The department sent a show-cause notice to Emanuel Exports last month, and it is understood the company responded with a 30-page statement'.

Pictures of dead and heat-stressed sheep aboard an Emanuel Exports shipment to the Middle East sparked public outrage earlier this year and led to a government inquiry into the export trade. 'The laws that regulate the export of livestock include strict requirements to ensure the health and welfare of animals', the Agriculture Department said in a statement. 'It is the responsibility of each exporter to ensure it meets those obligations. The department takes those responsibilities very seriously'.

It raises the issue of inherent rights for all sentient beings and how the rights of the vulnerable and disabled need to be protected by advocates who act as stewards for global ethical standards.

The interests of the powerful few are thus given priority through this economic choice. The commodification of sentient beings for their use value as a source of food and profit is placed above their rights as sentient beings. In terms of the capabilities approach, the long voyage in cramped conditions is abhorrent.

A critical review of the nature of the problem would require reconsidering the colonial agricultural decisions to 'run sheep' in one of the driest continents on earth, where other animals are better suited, such as kangaroos.

Food choices should consider the amount of energy and water used in production and the associated costs to the environment. From the perspective of preserving humane standards in agriculture and also minimising the size of our carbon footprint, the transport of sheep and cattle makes no sense, other than providing short-term profits, whilst the opportunity costs of pain and increased size of our carbon footprint will also be carried by young people in this generation and the next.

The third case is of the abuse of disabled people in South Africa as a result of contracting out services by the government in a bid to save costs. The court case revealed how the Minister of Human Services tried to save money by contracting out services. Cost savings were achieved at the expense of people's lives. To date the record of care in public health is dire for those who are voiceless. According to the executive summary of the Esidimeni-Report,[3] (South African Government Health Ombud 2018). the Ombud established that:

> A total of ninety-one (94+) and not thirty-six (36) mentally ill patients (as initially and commonly reported publicly in the media) died between the 23rd March 2016 and 19th December 2016 in Gauteng Province. All the 27 NGOs to which patients were transferred operated under invalid licenses.[4]

The minister decided to move the patients a bid to cut costs. The result was that many starved to death or died as a result of neglect and a lack of suitable care. This track record speaks for itself, and the minister was not held accountable. Social and environmental justice remains a priority for those who are the least powerful and unable to protest. This applies to young people, the elderly, disabled, undocumented migrants, frail and animals dependent on water. The commodification of the defenceless non-voters underlines the point I wish to make in this paper, namely, that inherent rights need to be respected irrespective of citizenship rights. The social contract needs to be extended to all those who have rights but cannot fulfill the responsibilities associated with citizenship, because they are too frail physically or mentally.

The fourth case is from South Australia where systemic abuse of the mentally frail in a public institution was exposed after relatives repeatedly blew the whistle on the abuse at Oakden (Groves et al. 2017). It resulted in many further cases being raised, and it opened up a discussion on elder abuse and the rights of the frail and disabled.

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[3] https://www.scribd.com/document/338095858/Esidimeni-Report#from_embed

[4] http://www.politicsweb.co.za/documents/the-life-esidimeni-disaster-the-makgoba-report

Sentient beings need to be protected by virtue of their sentience and by virtue of the fact that they are vulnerable (Butler et al. 2010). An ethic of care is in fact entailed in Rawls' (1999) notion of the social contract, however. The crucial point is the veil of ignorance (Richardson 2006). Policies ought to be made as if the designer were willing to have the policy applied to themselves or to their children. The fact that human beings regard themselves as higher-order animals should in fact be a basis for recognising that when old or frail, we too need a form of protection that is universal for all sentient beings. Protection needs to go beyond functional use value or the potential to reciprocate. The Kantian ideal of treating people as 'ends in themselves' and not 'means to an end' needs to be extended to all sentient beings, according to Nussbaum (2006). The human interest to be fed and clothed has rested on the exploitation of workers and animals. Colonisation and imperialism have enabled the more powerful citizens of some nation states to prosper at the expense of other people, animals and the environment. People and the environment have been commodified and treated as source of profit, a source of food or a beast of burden.

It is undeniable (Cochrane 2017) that animal liberationists lose any hope of support when they deny the interests of human beings to supplement their diets with meat or to test out medical procedures, for example. The argument begins to break down, however when cruel lives and deaths are imposed on the severely disabled who have the right to care and the voiceless of all ages and species. Throughout history, human beings without power or a vote have been more likely to be abused than those with some form of protection or full citizenship rights afforded by the social contract.

Donna Haraway's (1991) thesis on the way in which women, the disabled and animals have been commodified through drawing the boundaries of rights to powerful scientists to experiment upon the powerless underlines the importance of challenging discourses and associated interests. Human Rights Watch has exposed the way in which organ donors are 'volunteered' if they are convicted felons. Internationally, it is the very poor, who have nothing left to sell who are most likely to sell a kidney, in order to pay off debts or to create an opportunity for a better life. Briggs (1996) stresses that organs from executed prisoners are used for transplants.

Nussbaum (2011) stresses that emotional connection with others is one of the capabilities of humanity. The mirror neurons fire in sympathy when another creature feels pain. This is not the preserve of human animals. The ability to show compassion is not the preserve of human animals (De Waal 2009). The evolution of the human species is the result of the ability to compete and to co-operate through showing compassion. The Darwinian survival of the fittest thesis has been cited in a range of contexts and has been used as the subtext of many arguments for business competition within and across the boundaries of nation states. The competition across nations who espouse a so-called realistic approach to profit and power at the expense of protecting the global commons is rooted in the mistaken notion that the tragedy of the commons can be averted through privatisation, as Hardin stressed in his seminal paper that was not supported by research and instead cited Locke's thesis on the value of enclosures for protecting agricultural habitat. Vandana Shiva (2011, 2012a, b) has argued against this thesis by stressing that the global commons

is best served through more cosmopolitan approaches that protect both people and the planet. Bureaucratic control by distant and external agencies and markets control by commercial interests and corporations [can] create disincentives for conservation (Shiva 2002: 30–31).

Stiglitz et al. (2010) develop a more mainstream approach based on both idealism (a priori norms) the notion of interdependency of people and habitat is expressed in the concept of protecting wellbeing stocks through pragmatism (a posteriori measures namely:

The focus is on protecting 'wellbeing stocks', a concept adapted from Stiglitz et al. (2010: 15) refers to a multidimensional measure of wellbeing spanning:

> (1) Material living standards (income, consumption and wealth), (2) Health, (3) Education, (4) Personal activities including work, (5) Political voice and governance, (6) Social connections and relationships, (7) Environment (present and future conditions), (8) Insecurity, of an economy as well as a physical nature.

Protecting the Commons

In *Transformation from Wall Street to Wellbeing* (McIntyre-Mills et al. 2014), we stress the importance of rethinking economics in terms of organic and inorganic relationships across living systems (including sentient beings, non-sentient beings and our shared habitat on which we depend). This is elaborated clearly by Gibson-Graham and Miller (2015: 12) as follows:

> Let us try to think "economy" not as a unified system or a domain of being but as diverse processes and interrelations through which we (human and more than human) constitutes livelihoods. "Economy" (oikos-habitat; *nomos*-negotiation of order) might then become a conceptual frame or theoretical entry point through which to explore the diverse specificities of livelihood creation by a population (members of the same species) or a community (multi-species assemblage). (Gibson-Graham and Miller 2015: 12)

Human animals and other animals (sentient and non-sentient) require habitat, and thus the notion of living systems is very important. Bollier's notion of the commons is very similar to the work of Von Forster who sums up the notion of reciprocity in an expanded way, namely: 'A is better off when B is better off'[5].

Bollier and Helfrich (2012)[6] express it as follows:

> **The commons is not a resource.** It is a resource *plus* a defined community *and* the protocols, values and norms devised by the community to manage its resources. …**There is no commons without commoning**—the social practices and norms for managing a resource for collective benefit.

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[5] Dawkins (1996) stresses that in genetic terms survival is paramount, but this should not be confused with the potential for empathy in human and other animals, as stressed by De Waal (2009).

[6] 07/15/2011 'I am always trying to figure out how to explain the idea of the commons to newcomers who find it hard to grasp. In preparation for a talk that I gave at the Caux Forum for Human Security, near Montreux, Switzerland, I came up with a fairly short overview, which I have copied below…:http://www.bollier.org/commons-short-and-sweet'.

In order to manage the commons, mutual agreements need to be negotiated, and records need to be kept, in order to protect the interests of stakeholders. The commons needs to be theorised as a legal concept (Marella 2017), a transformative governance concept (*'Planetary Passport'* McIntyre-Mills 2017a, b) and a basis for systemic ethics based on critical thinking and practice, informed by critical capabilities (McIntyre-Mills 2014a, b, c; Churchman 1979; Ulrich and Reynolds 2010).

We are interdependent and dependent on a safe habitat. Ecological systemic approaches show that our hybrid interdependency requires many diverse species living in niches to enable the common good. This requires extending solidarity to multiple species.

Indigenous first nations have stressed that 'the earth is our mother' (Vidal 2011 cites Vice President of Bolivia, Alvaro García Linera, 2011). Vidal goes on to explain:

> "Bolivia enshrines natural world's rights with equal status for Mother Earth: Law of Mother Earth expected to prompt radical new conservation and social measures in South American nation …It makes world history. 'Earth is the mother of all', said Vice President Alvaro García Linera. It establishes a new relationship between man (sic) and nature, the harmony of which must be preserved as a guarantee of its regeneration. The law, which is part of a complete restructuring of the Bolivian legal system following a change of constitution in 2009, has been heavily influenced by a resurgent indigenous Andean spiritual world view which places the environment and the earth deity known as the Pachamama at the centre of all life. Humans are considered equal to all other entities".

Shiva (2012a, b) in 'Making peace with the earth' stresses our interdependence, whilst Butler (Butler 2011; Butler et al. 2010; Butler and Athanasiou 2013) develops a coherent argument that individualism and interdependence has been taken too far and that we need a greater vulnerability in our appreciation of interdependency. This does not take away the need to respect individual sentient rights, but they can best be protected through appreciating that individual lives are strands within a living system and that by protecting the common good, we are best placed to protect individual lives. The challenge is to address ways to address balancing individual and collective needs.

The lack of compassion is reminiscent of the transport of slaves as commodities during the last century. The inhumane slaughtering processes offshore also occur in some parts of Australia. The shifting of blame to other nations for inhumane slaughtering is problematic at a number of levels. It shifts the focus from the issues of responsibility of the rights of animals locally and globally to the responsibility for global laws to protect the rights of sentient beings that are commodified and trafficked for profit. It also shifts the gaze away from governments to businesses that place profit in the short and medium term above the long-term decisions to protect the environment through enabling better farming choices.

Cochrane (2012) makes the point that rights and interests of human beings are often placed above those of animals in a world of scarce resources. However, once it is acknowledged that anthropocentric interests can undermine the common good, the argument can be made that architectures of governance need to support not only the rights of citizens but also those who do not have citizenship rights.

Not only is the transport of sheep long distances cruel and abhorrent to those who have the capability to empathise with the suffering of others, it does not make sense in terms of the common good. Lowering the size of our carbon footprint requires that food should be eaten locally. Sheep have been cited as being part of the ecological problem in Australia because they graze the grass too low, and in fact, agriculture and food sustainability would be better served if those who feel they must eat meat relied on the local indigenous kangaroo. This point has been made convincingly by Flannery (2005, 2012) on species extinction associated with overgrazing and the lack of stewardship by colonial governments when South Australia was 'opened up' for development. The overlanding of sheep in Australia by colonists (such as Edward John Eyre) underlines the colonial battle against the elements and the indigenous people (Rudolph 2013).

The argument for global architectures of governance to be set in place to protect habitat for human and non-human animals, in order to support capabilities for a life that is worth living, has already been developed in 'Recognizing our hybridity and interconnectedness' (McIntyre-Mills 2017a, b) and in 'Planetary Passport' (McIntyre-Mills 2017a, b). It stresses that ecological citizens should care about their postnational regional responsibility to protect biospheres on which we are *all* interdependent.

Nation states do not always support the common good. As Florini (2003) stressed, the nation state was used to enable the powerful to compete by raising armies to wage war. Boulding also argued for the need to develop architectures of governance that would support the global commons. He stressed that we are not in separate life boats (nation states) we are all in one spaceship (earth). The cowboy economics (Boulding 1966) of compete and profit at the expense of others (including non-citizens and voiceless sentient beings) is unsustainable, besides being morally reprehensible. The notion that national sovereignty can and ought to be overruled in certain instances needs to be stressed as the next step in the argument (Cochrane and Cooke 2016). The international criminal court is an obvious institution for the trial of human rights abuses. The ambit needs to be extended to address international abuse of sentient rights and the destruction of habitat. The notion of rights for domestic pets, rights for farm animals and liminal animals sharing city/village/agricultural environments and the rights of wild animals has been addressed by Donaldson and Kymlicka (2011) in *Zoopolis*. By providing tracking chips to protect domestic and farm animals, some protection could be provided along with mandatory reporting requirement to report abuse.

The best way to protect wild animals is to ensure that their habitat is not destroyed. Liminal animals need safe corridors between wild territory and green spaces in cities. Where they impinge on human interests, due care should be shown in managing the multispecies interface by preserving spaces that respect biodiversity.

Reporting the abuse of children is now mandatory and the reporting of abuse of animals is a logical next step. In *Systemic Ethics* (McIntyre-Mills 2014a, b, c), a non-anthropocentric case is made for recognising our hybridity and interconnectedness and the need to protect a shared habitat for living systems. Human beings are a strand in a living system.

The divide between rich and poor within nation states also poses a challenge that needs to be addressed in the international context, and the populist protest against growing inequities in the USA resulted in the election of Donald Trump, who promised to 'Make America great again'. The need to address convergent social, economic and environmental risks cannot however be addressed through business as usual, based on competing interests.

Nation states need to comply with recognised international standards of ethics to ensure a life that is worth living. Citizens of some nations cannot live at the expense of other nations. Colonial and imperialist ethics continue to cast a long shadow on the powerless.

The work of Snyder et al. (see Snyder 2011) and Pert (1999) on the 'Molecules of Emotion: Emotional Intelligence and the way our thinking shapes our body and how emotional memories are stored in our cells' is now widely accepted in mainstream biology and neuroscience. To cite Pert (1999:257):

> In the old metaphor, we ignored the observer in an attempt to avoid any taint of subjective interference in determining reality. In the new metaphor, the observer plays an important role in defining the reality, because it is the observer's participation that makes the difference…

The work of Candace Pert (1999) makes a similar argument to Lipton (2016) about how our thinking and our emotions shape our human bodies. In some ways Lipton's new age argument dovetails with the arguments made by Neil Turk in 'The universe within' (2012) that human perception and a sense of the spiritual remain important and ought not to be dismissed in the way Dawkins (1996/1976, 2006) suggests. Lipton (2016) argues that we are human receptors who make sense of the world around us. We take in signals and we send off signals. Thus, the material body and the mind play an equally important role. Pert (2013) stresses that what separates humanity from chimpanzees—with whom we share more than 99% of our DNA—is our ability to make sense of categories or patterns with the help of our more developed frontal cortex.

However, perhaps the greatest potential upheaval for anthropocentric ethics is a realisation by primatologists such as Goodall and Frans De Waal that human beings are not the only creatures capable of consciousness. The ability of primates to learn sign language is well known, but their ability to think at a higher level is being presented by empirical studies by primatologists. According to Kehoe (2016), 'Goodall Witnessed chimps performing a specific swaying dance and appeared to perform rituals near specific trees or places of special significance'. Kehoe is a Ph.D. researcher in wildlife conservation and land use at Humboldt University of Berlin.

The Non-anthropocentric Case for Living Systems and Postnational Stewardship of Habitat

Alternative ways of monitoring from above and below are available through decentralised networks supported by block chain programming that could ensure that postnational controls are achievable. Architectures for supporting global ethics

already exist, namely, policies such as the Aarhus Convention (1998) that stresses the importance of freedom of information and the right of postnational citizens of the EU to monitor environmental conditions and report corruption. The convention makes it possible for reporting to the European Parliament and the European Criminal Court.

Such an architecture for postnational regional biospheres could protect the capabilities of sentient beings as well as the living systems on which they depend. Global ethics requires stewardship by active engagement. The potential for transformation is indicated by the outcry against the treatment of defenceless children and sheep. Conversely, the risks are also apparent. As Keane (2009) stresses in 'The Life and Death of Democracy', monitoring and speaking out is a sine qua non of democracy. The same was said by Edmund Burke: "All that is necessary for evil to succeed is that good men (sic) do nothing."

Embodied Emotions and Network Knowing

Neuroscientist Susan Greenfield (2000, 2003) stresses that thinking about our emotions is important, in order to avoid rash decisions. She also stresses the importance of connecting with one another and the environment and animals in real time, in order to develop as fully rounded human beings. The potential for network knowing to help monitor the way in which resources are consumed and distributed needs (Crenshaw 1991; Dhamoon 2011) to be addressed with caution. All technology can be used for positive and negative purposes, and Greenfield (2015) stresses that the more time we spend in front of computer screens, without the ability to read the emotions of others (including sentient beings), the more likely we are to develop a sense of distance between us and them.

Bateson's (1992) understanding of the importance of cybernetics and feedback underpins the notion of ecological stewardship or steering. However, the use of communication tools, computer mapping and modelling can be used in different ways, depending on our assumptions and values. By assuming that human beings do not have the right to abuse those currently unprotected by the social contract entails reframing ethics and governance so as to extend the 'tower of morality' (De Waal 2006a, b). Patterns of advantage and disadvantage can be mapped through network knowing to protect diverse species.

In 'Steps to an Ecology of Mind' Bateson (1992) stressed that consciousness is a continuum. His daughter Mary Bateson (2016) reminds us of the importance of comprehending our place in the universe. Von Foerster (1995) a fellow cyberneticist sums up an appreciation of our interconnectedness as follows: 'A is better off when B is better off'. Nussbaum (2001) explains, for instance, that emotions alert us to ethical issues, and they can enhance ethical consciousness. The next step in extending the capabilities approach is to foster the capability and capacity to protect the living systems of which we are a strand. This requires public policy and governance to educate the people about their responsibilities as ecological citizens. This could
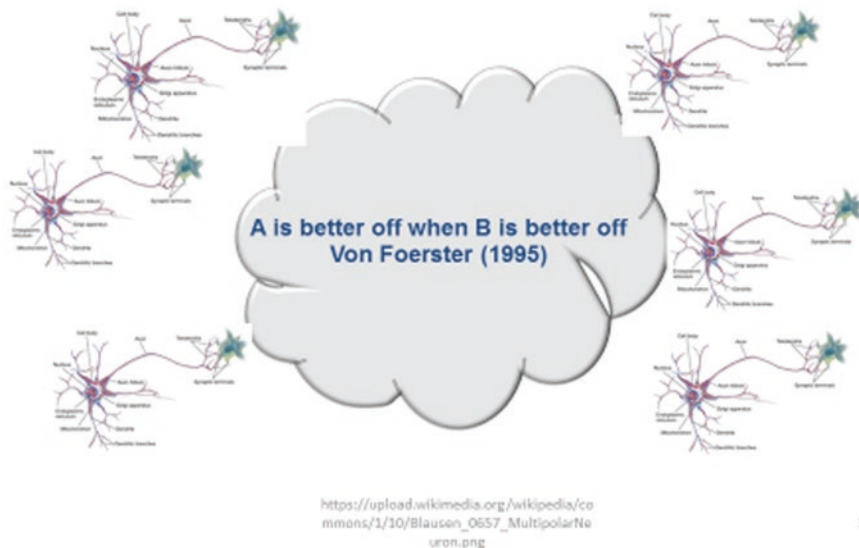
Fig. 19.1 Network knowing inspired by Pert and Von Foerster (Sources and inspiration: The multipolar neuron picture was downloaded from Wikipedia commons. Network knowing inspired by Pert (1999) and Von Foerster (1995))

be a first step towards protecting regional biospheres and thus the diverse habitats required to support living systems (Wadsworth 2010). The rights of all can be protected through network knowing (Wenger 2009).

Imagine a world in which mirror neurons could protect against abuse? Imagine a world where ecological citizens could protect the shared habitat on which multiple species depend?

If the neurons can map and manage the distribution of resources and the fair treatment of sentient beings, then we may progress towards protecting the global commons. The discourse of us/them can be set aside once we appreciate that we are part of one ecological system (Fig. 19.1).

Global Ethics and Governance

Cochrane and Cooke (2016) stress that the inflation of human rights to include the rights of sentient beings could lead to conflicts, but sensible laws and global architectures along the lines of an extended form of Aarhus Convention, as detailed in 'Planetary Passport' (McIntyre-Mills 2017a, b) this could be avoided.

'The Coming Democracy' (Florini 2003) outlines an argument for the potential of the European Union (and other confederations) to scale up the Aarhus Convention to enable all citizens—who are members of the EU—to protect their local environment.

Currently, the Aarhus Convention addresses environmental concerns. This could provide the architecture for a balanced approach to involvement by members of a federalist union that respects the identity of sovereign nations and their citizens—to the extent that their freedom and diversity does not undermine the rights of others beyond their borders. Protection ought to be extended to young people, future generations, the voiceless (including sentient beings), the disabled and those who are not protected by citizenship rights and the social contract. If people understand that they are better off as a result of protecting the common good, then this can be achieved. The wellbeing of human animals is dependent on the wellbeing of the ecosystem they share with other living systems.

Conclusion

Arguments for and against the national, transnational and supranational organisations to intervene on issues pertaining to human and animal rights have been raised by idealists, pragmatists and realists. A way to bridge the divide is through expanding pragmatism to consider the consequences for current and future generations of living systems of *not protecting the fabric of life on which we depend*. This point was made in 'Encyclopedia of Food and Agricultural Ethics' (McIntyre-Mills 2014a, b, c).

To sum up, the IPCC formula (2013) makes it clear that the size of our global footprint is the result of human development decisions. They pose an existential risk (Bostrom 2011) to all living systems. Alternative forms of democracy and governance are possible as outlined elsewhere in 'Identity, Democracy and Sustainability' (McIntyre-Mills and De Vries 2011), 'Systemic Ethics (McIntyre-Mills 2014a, b, c), 'Transformation from Wall Street to Wellbeing' (McIntyre-Mills et al. 2014) and 'Planetary Passport' (McIntyre-Mills 2017a, b).

Critical capabilities are required to enable appropriate, systemic responses at multiple levels (Pierre and Peters 2000) based on an understanding of what the problem is represented to by Bacchi (2009). Then commoners who guide the commons need to be inspired to think about how things could be done differently by using a Design of Inquiring Systems Approach (Churchman 1979; Ulrich and Reynolds 2010).

In line with the Paris Declaration (1997), UN Sendai Framework for Disaster Risk Reduction (2015–2030) needs to be addressed through reducing the gap in life chances and enhancing social inclusion (Goals 10, 11, 12, 14, 15, 16) through partnerships our approach needs to be framed together with coresearchers based on local lived experience.

Both a priori norms to guide global ethics and a posteriori considerations are needed to measure the performance of the UN Sustainable Development Goals to protect sentient beings and their habitat. The notion of virtuous living needs to be explored in terms of:

- A priori norms are guided by accepted rules of behaviour.
- A posteriori indicators and measures of performance to protect living systems. Both are needed in order to guide practices and to hold government representatives to account.

The UN 2030 Agenda[7] is:

> The new global framework to help eradicate poverty and achieve sustainable development by 2030. It includes an ambitious set of 17 Sustainable Development Goals…. The 2030 Agenda for Sustainable Development sets out the global framework to eradicate poverty and achieve sustainable development by 2030.

The paper aims to increase our understanding of non-anthropocentric life chances and dynamics of vulnerable population groups and the need for reframing cross species ethics. Significantly, the paper responds to complex ethical policy challenges posed by the Paris Agreement and the United Nations Sustainable Development Goals (2017), in order to narrow the gap in living standards between rich and poor as well as the powerful and powerless. Policy choices made by this generation shape the wellbeing of both current and future generations of life. A non-anthropocentric approach needs to extend a sense of fairness to others including sentient beings and living systems.

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[7] http://europa.eu/rapid/press-release_MEMO-15-5709_en.htm

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Chapter 20
Concluding Note

Norma R. A. Romm and Janet McIntyre-Mills

Abstract In this book we have striven to create a compilation of interrelated material around the common theme of nurturing eco-systemic living and what this might entail in our everyday lives. Most of the contributions focus on how we can recognise what we call eco-systemic responses to food and water security. The contributions taken together offer a variety of suggestions for ways of human knowing and being which nurture cycles of life and regeneration, through revitalising our sense of connectivity to all that exists. The chapters express our efforts to consider collectively the value of many ways of people's knowing together, spanning, inter alia, creativity, imagination, spirituality, learning from nature and other organic and inorganic life forms. The book provides a variety of ways of interacting to protect living systems and to enhance social and ecological wellbeing.

Keywords Eco-systemic · Regenerative approach to living · Relationality · Cycle of life

In this book we have striven to create a compilation of interrelated material around the common theme of nurturing eco-systemic living and what this might entail in our everyday lives. Most of the contributions focus on how we can recognise what we call eco-systemic responses to food and water security.

The approach is to stress the importance of not seeing these responses in anthropocentric terms as just being to protect the future of *humans* but as evidencing a care and spiritual connection to "all that exists" in the web of life of which we are part.

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The references to social and environmental justice in many of the chapters symbolise for us that the authors (including ourselves) are trying to express the potential of humans to recognise that their "selves" exist in relation to communities, where communities include all sentient beings and all living and nonliving things.

Consequences in terms of quality of life for all of us on the planet can become explored if we become more conscious or mindful that we are but a strand in the web of relationships but that our thinking become "material" as it impacts on how the web of life unfolds.

The book explores challenges and disturbances of balances (and inclusive wellbeing) created by non-relationality and provides examples of some attempts to restore balance in our relationships in and across communities. Chapters span geographical contexts such as Australia, Bangladesh, East-Timor, Indonesia, Korea, New Guinea, South Africa, United Kingdom and Vietnam.

We ask readers to re-reflect on the production, reproduction, consumption, distribution and redistribution cycles that potentially can define a regenerative approach to living on the planet as people together—in various arenas.

We explore opportunities to intervene responsibly as stewards in turning around the effects of the devastation created by intentions to organise social existence (and attendant relations with all living systems) according to profit and power principles.

The chapters as whole aim to encourage readers to think about their everyday choices as individuals, members of communities, members of organisations, potential founders of co-operatives, policymakers, environmental activists or simply activists in your neighbourhood.

We invite you to read further to explore the arguments as presented, in the spirit of enabling us to think about how we live our lives grounded in what McIntyre-Mills (2014) calls "systemic ethics".

The final chapter of this book is the one by series editor Robert Flood, who offers a vignette exploring his way of appreciating systemic thinking and caring.

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Chapter 21
Being Systemic and Caring

Check for updates

Robert L. Flood

Abstract In this vignette I introduce my understanding of the term systemic and the act of being systemic, which has caring at its heart. Before that I offer a few from many poignant stories from my life, happenings that raised questions in my mind, impacted on my relationship with the world, and shaped my way of living into 'being systemic and caring'.

Keywords Being · Caring · Systemic

When I was very young, still young enough to hold my mother's hand, my mother and I were walking through town, and we passed a disheveled long-bearded man lying on a piece of cardboard in the freezing cold. Nobody seemed to care about him and that made me cry. My tears touched my mother's heart, and she went back to give money to the vagrant. I recall their eyes making contact. This is my first memory of unfairness and caring.

In my young teenage years, I spent free time exploring the English countryside, camping at weekends, and searching out every kind of wildlife (Photo 21.1). The natural world was a fascination. I found a badger set and every now and then watched the badgers late evening. I was distraught one evening to discover that a farmer had gassed the badgers, my friends as I saw them. What given right did the farmer have to kill the badgers? This is my first memory of deep anger about careless and wanton human destruction of the natural world.

I had a serious motorbike accident when I was 16 years old. In intensive care in the bed next to me was a gypsy with a heart problem. One morning he had a massive coronary and died on the floor next to me. Ever since I have known about the fragility and ephemeral nature of human life.

The motorbike accident left me with a lifelong physical disability. I experience people's attitudes to disability through the eyes of a disabled person. Some people

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Photo 21.1 From a young age, I had a fascination with and cared about the natural world

Photo 21.2 My first job in 1972 was caring for people, then classed 'mentally retarded' and hidden from society. This group photo shows me (seated with long hair) with friends, among whom there was startling brilliance

treat me as different and that hurts. Progressive positive change in attitudes toward disability gives me hope for more widespread positive changes in society.

My first job was with people classed today as intellectually disabled (Photo 21.2). Back in the 1970s, however, such people were considered mentally retarded, or mad. Yet I found brilliance among these 'mad' people. 'Wilf the weatherman' could tell you the weather report for England on any day as far back as records go. 'Gareth the pianist' in the middle of the night came to the grand piano in the hall and played with perfection beautiful, haunting music. They were brilliant, not retarded or mad, not by

my understanding. Why were they locked away, hidden from society? Later in life Michel Foucault's historical study *Madness and Civilization* answered my question—civilisation defines madness, the definition changes with civilisation, and civilisation exercises *power over* people who fit its definition.

My son in his youth watched the science fiction franchise Star Trek that addressed social issues of its time. In one show Captain Kirk of the Federation (goodies) led a battle against the Commander of the Romulans (baddies) who threatened the Federation. Of course, Captain Kirk won, but there was a nice touch when both Captain and Commander realised that they could have been friends in another reality. This metaphor stuck in my mind, and I think of my work as engendering transformation to such a better and fairer reality.

My mother had terminal cancer and spent time in hospital. One visit, I found her curled up like an embryo, fists clenched, with a drawn face and distant gaze. After comforting her I set about finding out more about her significant decline in health. The long and short of it was that her illness required care from a range of specialists, the specialists lacked co-ordination, and my mother wasn't being properly looked after. I witnessed the incongruity of deeply caring staff and organisational failure that deprived my mother of their care. Stafford Beer's book *Designing Freedom* is a brilliant exposition of designing effective organisation to achieve freedom from the consequences of organisational failure.

Further, I wrote to the senior doctor and insisted on change, signing the letter off with the 'power' vested in my title Professor. The letter achieved the desired result, and my mother enjoyed some happy times before passing away. Yet, many families of very sick people do not enjoy privilege such as professorial status. A sick family member might die as a result. It's not fair that a minority have privilege and power.

One night, Mike Jackson and I, then work colleagues, drove past a petroleum complex lit up like an Xmas tree. In a glib comment, I said the lights were charming. Mike asked if something can be charming if *we know* that it is linked to exploitation, a tough question that has profound wider implications. How can we appreciate, for example, the wonder of nature while knowing at this moment that there is widespread human suffering on Earth?

What on Earth does systemic mean? Interesting question and here's my take. Two core concepts of systemic thinking are interrelatedness and emergence. All things are interrelated and other things emerge from interrelated things. Oddly, other things that emerge are not obviously related to the things that they emerge from. An example is you. A dissection of you will reveal interrelated functional parts (e.g. brain, kidney, liver, heart, etc.). Things it won't find include your character and your soul. These emerge from the interrelations between the biological/genetic you, your intelligence, and things in your life (your history, your family, your education, cultural norms, power structures, etc.). I find that amazing and mysterious.

A systemic appreciation of things pictures a world full of mystery in that total understanding is beyond our grasp. In other words, the world is characterised by phenomenal complexity. Complexity is not simply the systemic idea of a vast number of interrelated things and emergent things, although this conjures up an idea of

complexity; rather, complexity arises from the systemic idea of many different interpretations people have of things going on around them. An individual's interpretation of things is difficult to understand, often for the person themselves, let alone by other people. Understanding the dynamics of a group of people thus is hugely complex, an organisation even more complex, and a society unimaginably complex. Put simply, we can't know it all.

Getting my head around this idea eased intellectual tensions arising from university education. To become a systems engineer, I was taught the method 'model, control, keep things in a steady state', a kind of systemic reductionism. Transferring the idea from university to the wide-world of human beings was stressful because my best efforts to control even relatively simple arrangements of people didn't work. After a long process of reflection about the 'systems idea' learnt at university, and reflection on my life experiences, I came up with four mantras for systemic thinking:

- Know of the unknowable.
- Manage within the unmanageable.
- The only thing that doesn't change is change itself.
- Care about the consequences of your actions.

Systemic thinking recognises a mysterious world, but that does not mean being systemic lacks relevance to the everyday 'real social world'. Far from it! If you think about it, systemic thinking is relevant to every aspect of everyday life, simply because the notion 'systemic' resonates strongly with everyday life experiences. Thus, to understand something entails building up 'whole' pictures, not attempting to separate/isolate some 'thing' in the belief that this thing alone holds 'its' secrets. In fact, nothing exists that is separated and isolated. Separating things out is a hypothetical concept for some imaginary world and lacks relevance to the 'real social world'.

Separation is destructive and unkind. Separation creates victims. Victims can be anything, from you, to someone at work, to some organisation or society, to any aspect of the living world, such as a set of badgers, a species, an ecosystem, or indeed life on Earth:

- Separate you from society and you become alienated such that you (yes, potentially you or anyone) may react in an extreme way toward society, like mass killing in a school. Systemic thinking is cautious to ideas, for example, of an evil person, preferring the idea that an evil act has systemic explanations.
- Separate someone or a department at work by blaming/scapegoating them for a mistake alienates them from the organisation and subverts a deeper systemic inquiry. Systemic inquiry typically finds that 'mistakes' arise from organisation-wide issues like inefficient processes, not from a separate part.
- Separate human progress from the natural world, thereby ignoring the impact of human progress on the natural world, may change it such that the natural world can no longer support human progress, or indeed human civilisations.

To my mind, acting systemically involves more than appreciating and handling things in terms of interrelatedness, emergence, and interpretation. Acting systemically is knowing that there are systemic consequences of our actions, *caring about those*

consequences, and being prepared to do something about 'negative' consequences. Defining what are 'negative' consequences is a systemic challenge in itself, ideally involving the viewpoints of all stakeholders in dialogue, all involved and affected people, and all involved and affected aspects of the natural world.

There are many reasons why people don't care and thus are not acting systemically. A common reason is that some people do not know that there are systemic consequences to their actions; there is a need to educate them. Another common reason is that appreciating and dealing with consequences of actions is seemingly too complex; there is a need to provide systemic methods that deal with complexity. A third common reason is that some people in positions of power do not want us to know about or be able to challenge consequences of their actions, which serve their needs but not others; there is a need to find effective ways to understand their actions and to challenge them.

> Caring is not always easy. Caring can be detrimental to emotional well-being and lead to hurt in a variety of forms, such as stress resulting from managing complex change, distress in witnessing victims, and victimisation by powerful people who feel threatened. Hurt people are more likely to withdraw from their social world—'self-separation'. An important part of remaining systemic and actively caring therefore is through emotional resilience. There is a need to support caring people, by caring about them and by developing and disseminating ideas for emotional resilience.…
> 'Troubling times' written January 1975
> All of the towns, and all of the cities
> All over the world.
> All of the people, and all of the thinking
> Yet none of us know anything yet.
> None of us know what lies beneath
> The depths of our minds
> Or even if they have a limit.
> I wonder how far could anyone go?
> What really lies quietly inside me?
> And is there an end to reality, or futility?
> And will there be a beginning
> That I can hold or see?
> Let me take it from here…
> …

This vignette gives an impression of being systemic from my viewpoint. If the few words that make up the vignette do not portray being systemic in your opinion, then please tell me so that I can reflect upon your view, indeed so that we can reflect upon each other's view, preferably through dialogue, and learn together, and in this way continue to strive to be systemic and caring.

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