Ashok Kumar · Diwakar S. Meshram
Krishne Gowda *Editors*

Urban and Regional Planning Education

Learning for India

Springer

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New Delhi, India
January 2016

Ashok Kumar
Diwakar S. Meshram
Krishne Gowda

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Editors and Contributors

About the Editors

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Krishne Gowda is the Director at the University School of Design, University of Mysore, Karnataka since December 2014. Before this Prof. Gowda held the position of Director, Institute of Development Studies, University of Mysore for nearly 6 years. He has been working as a Professor of Urban and Regional Planning at the University for over 12 years. So far he has supervised 16 doctoral students. He has authored and co-authored more than 40 papers in journals, and also authored and co-authored 8 book chapters. He is a great organizer of academic events.

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Chapter 1
Introduction: Making a Beginning

Ashok Kumar

Abstract Hope, trust, and belief mark the beginning of a task such as book writing and editing. Introducing the subject like planning education itself is not an easy job because of multiple interpretations by a multitude of stakeholders, and uncertainties and fluidities of scope of the planning field. In any case, in this chapter we introduce the book, which is organized into four parts excluding the introduction and the conclusions. The book revolves around these intertwined four parts, which include the emerging ideas of urban and regional planning; urban and regional planning knowledges; urban and regional planning ethics; and international perspectives on planning education. Conclusions aimed at focusing on the future of planning education in India present the closing chapter of the book.

Keywords Planning history · Planning knowledges · Planning ethics · Planning methods · Planning sites

1.1 Introduction

Making a beginning is a hope and belief that the journey will be eventually completed. This journey began in the early 2014, several months before the actual moment of holding the international conference titled "Town and Country Planning: Retrospect and Prospect" from 21 to 23 November 2014 at the University of Mysore, Mysore, Karnataka, arrived. The conference was a highly successful event in which a large number of interesting presentations were made. Over 20 authors even submitted their papers before arriving in Mysore, and others submitted in the middle of 2015. Now we were becoming anxious about the fact that papers have been received and presented; what should be done next. However, we were clear in our minds that we will not let this opportunity pass without making a lasting impact through publication of some of the selected papers in the form of a book.

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The book before you is an outcome of those anxieties and efforts of editors and authors of selected papers presented at this international conference.

The book *Urban and Regional Planning Education: Learning for India* is the first book as far as we know, which is totally dedicated to the subject of planning education. This book is different from earlier books on planning education in at least four respects. First, earlier books were published when the Indian economy was still largely closed and highly regulated without feeling the impacts of sustained global interventions. Second, earlier books written in mid-1990s partly focused on planning education and spent equal, if not more, time and space on planning practices (see Kumar 1995). The primary idea contained in the earlier works was to show how to make government-controlled master plan-led planning system efficient. Planning schools were largely seen as places for producing planners for the government. Private consultancies were far fewer than today. Third, this book also talks about expansion of planning education in India since the last two and a half decades after economic liberalization and its changing nature. Fourth, chapter writers have also provided insights about new areas, which were not covered in previously edited and written books. For example, the new book contains a chapter about "Silences in the Indian Planning Academy: Spatiality, Diversity and Participation." Themes such as planning pedagogy, planning knowledges, and planning ethics were also not discussed in the previous books, which have been made integral part of this new book.

Focus of this book is: how planning education is imparted in India; who is responsible for imparting planning education; and most importantly what the nature of the Indian planning education is. Contradictions, strengths, and critical issues haunting planning education in India are also highlighted in this volume. This book provides a comprehensive review of the Indian planning academy and its actions aimed at making planning education a highly relevant and respected professional training and instruction programme. This book also contains some global perspectives as five chapters are written by eminent academicians and practitioners from countries including Australia, U.K., The Netherlands, and Italy. However, a majority of the chapters are written by Indian authors. Chapters written by foreign authors dwell upon their local planning models and thinking, which could have some implications for India in a globalized Indian planning education scenario. Set in the historical context, this book intends to achieve the following objectives:

- To comprehend the historical development of planning education in India.
- To examine types of knowledges being used in teaching planning in the Indian planning schools, and also explore whether some sort of integration of diverse knowledges can be achieved.
- To explore ethical foundations of urban and regional planning in Indian planning schools.
- To underscore how far international planning perspectives could offer a set of new tools and processes to Indian planning education for further improvement.

In order to achieve these objectives, we have divided this book into four parts, apart from an introduction and a chapter on conclusions intended to discuss the

future of planning education. The four parts of the book include the following focus areas:

- Emerging Ideas of Urban and Regional Planning
- Urban and Regional Planning Knowledges
- Urban and Regional Planning Ethics
- International Perspectives on Planning Education

Woven around the above four themes, this volume provides a comprehensive view of planning education in India with a focus on history, planning knowledges, ethics, and international planning perspectives.

1.2 Emerging Ideas of Urban and Regional Planning

Four chapters form the first part of the book. The paper by D.S. Meshram and Swati Meshram traces briefly the history of planning education starting with the mid-1950s particularly focusing on the specific attempts made by the Institute of Town Planners, India (ITPI). Starting in 1955 with the establishment of the School of Planning and Architecture in Delhi, today India has 21 approved planning institutions with an overall intake of 600 students. All these institutions provide postgraduate planning education and only five institutions provide undergraduate planning education. Intake of undergraduate planning students is also very limited. Comparatively less emphasis on undergraduate planning education presents an imbalance in favor of postgraduate planning with students being drawn from a number of disciplines like civil engineering, geography, economics, sociology, and architecture leading to the production of planners with diverse academic backgrounds. Government of India is now beginning to address this imbalance between undergraduate planning education and postgraduate planning education by setting up new Schools of Planning and Architecture or SPAs. In the last decade, two new SPAs were set up by Government of India in Bhopal, Madhya Pradesh, and Vijayawada, Andhra Pradesh. A recent committee set up by Ministry of Human Resource Development, Government of India, has further recommended setting up of new SPAs throughout the country. Shortage of planners is highlighted and directly linked to increasing number of urban settlements, large number of rural settlements, and local government set up created after the implementation of 73rd and 74th amendments to the Constitution of India in 1992. These factors are regarded as causes for having more planners. Toward the end, authors present liberalization as a historic opportunity to spread planning education throughout the country and make a number of proposals in this regard with a particular focus on enhancing the students intake, faculty development, and training for upgradation of working planners, and inter- and intranetworking among planning schools and the industry.

What kind of planners would be required to tackle major urban challenges presented by Indian towns and cities? This is the question that Rolee Aranya and

Chetan Vaidya attempt to answer by first discussing the main urban challenges of large number and size of urban settlements; informality and inequality; climate change and attendant disasters; and institutional challenges embedded in the historical legacy of planning. Commitment of Government of India to making Indian cities smart is understandably lauded by the authors. But at the same time, a concern is expressed about the gap in capabilities of planners being produced in Indian planning schools and the kind of skills needed to "envisage and facilitate smart urban growth encompassing both the need for modernization and the removal of abject urban poverty that is evident in our cities." Even before dealing with the issue of quality of planning education, the authors believe that it is crucial to point out that just to meet the gap between total requirement of planners and current supply of planners, India must produce at least 8,000 planners every year for the next 20 years. This means that the existing student intake of 600 must be increased to 8,000 students. Although the Ministry of Human Resource Development is making efforts to set up new planning schools throughout the country, timely establishment of these institutions could produce desired number of planners. On the issue of quality of planners being produced in India's planning schools, the authors make a number of useful recommendations. Notable among them is that planning schools must understand and recognize that unique sets of skills are required for planners working in three settings, i.e., government, private sector, and the third sector. Accordingly, planning schools need to provide specific skill sets by diversifying their subject offerings. In addition, planning schools should also start producing urban managers for the management of cities.

The chapter by N. Sridharan covers a long historical period with a focus on the site we today know as southern India. Sridharan argues that when we begin discussing the history of urbanization in planning schools in India, we start deliberating by going back to a period when famous settlements of Mohenjadaro-Harrappa were built and quickly move to the Mughal period appreciating their city building and monument construction skills, and then again rapidly jump to the colonial period when modernist planning principles were on full display to construct colonial enclaves such as capital towns. Through this large historical sweep, mostly planning educators focus on the north Indian history of cities and towns and ignore the equally important historical development and planning of the south Indian cities. The chapter by Sridharan is a welcome step in making a beginning to fill this large gap. By focusing on historical and archival data on urbanization along with information on agro-climatic zones and corridors, Sridharan argues that the students could be given much needed knowledge about city development in the history of southern India. It is also hoped that by doing so we can move away from project-based urbanization attempts to process-based urbanization in the present day India.

Clearly urban governance is the chief concern of the chapter written by Tathagata Chatterji and Aparna Soni. The authors contend that urban governance should be strategically placed within planning pedagogy since Indian economy has moved from "an inward looking, public sector dominated developmental state to a more market oriented one." At the present moment, the subject of urban

governance is located at the periphery of planning education both at undergraduate and postgraduate levels. In planning studios, the subject of urban governance is just tolerated and discussed after all important subject areas have been fully explored and exhausted by the students. Urban governance, the authors show, plays a critical part in shaping cities, more so in India because of the large number and size of cities. Another problem is that there is a lack of integration of theory subjects related to urban governance with planning studios. If knowledge on urban governance is provided in the initial two years in undergraduate classes and in the initial two semesters in the postgraduate classes, the students could make use of this knowledge in the planning studios in the last two years in the bachelor of planning programs and in the last year of postgraduate planning programs. The authors recommend that planning syllabi in all planning schools are required to be changed so that the subject of urban governance could get its rightful place in planning education in India.

1.3 Urban and Regional Planning Knowledges

Second part of the book contains six chapters dealing with a variety of issues pertaining to planning knowledges. The chapter by Ashok Kumar marks a beginning in the Indian context by stressing the significance of multiplicity of planning knowledges as opposed to the body of knowledge accepted under the scientific rationalism tradition of planning where the instrumental reason is the king (also see Sandercock 2003). Drawing on most famous examples of the Alliance of three organizations (The Society for the Promotion of Area Resource Centers, National Slum dwellers Federation, Mahila Milan), the author shows how communities in Mumbai and other cities of India like Pune and Bengaluru have been able to produce relevant knowledge for themselves for providing access to basic services and housing. Second, self-produced knowledge is also employed to negotiate with governments at various levels. Betters deals have been secured by communities during upgradation and resettlements of informal settlements. Third, community produced knowledge, particularly through self-enumeration to build settlement profile, is very helpful in framing collective identities of communities. Surprisingly, planning schools in India are oblivious to these diverse forms of knowledges and politics where communities are successfully able to negotiate with governments to secure access to services, housing, secure land tenure, and several other benefits. Arjun Appadurai has termed these kinds of innovative approaches of producing self-knowledge as "the right to research" (Appadurai 2006). Another site of knowledge production to which Ashok Kumar has drawn our attention is planning theory building. It is common knowledge that western planning theories are generally derided by Indian academicians for their unsuitability for the Indian urban condition. Insightfully, the author argues that it does not really matter from where a theory originated, what matters is how a theory is used in a different context, and how this use in turn reinforms the old theory. There has to be a dialectical

movement for theory development (also see Chatterjee 2014). In the end, the author urges that planning schools would be well advised if their students and faculty pay closer attention to the multiplicity of knowledges being produced in India and carefully and critically incorporate these potentially useful and transformative knowledges in planning syllabi. As outlined in this chapter, apart from the two sources of knowledge discussed in this chapter, other sources of knowledges could also be explored.

Titled "Imparting Inclusive Education to the Next Generation of Planners through Participatory Learning: A case of the Global Studio Bhopal," the chapter written by Krishna Kumar Dhote and Preeti Onkar Singh also dwells on the production of planning knowledges. In this chapter the authors show how university–community partnerships could be used to build new knowledges to inform public planning policies. By using global planning and design studio with the full involvement of planning students, authors show how newly produced knowledge is used for place making, particularly public places. This chapter is particularly focussed "on understanding the process of inclusivity in the context to participatory learning. It presents processes and outcomes, and seeks to engage with the diverse experiences and viewpoints of communities and to constructively rethink educational practices for inclusive urbanization." This chapter is another example of how faculty and the students could actively produce very different kind of knowledges through involvement of local communities.

Each semester in undergraduate planning takes up different kinds of studio. It is a given that all studios will primarily relate to planning. The chapter written by Natraj Kranthi Valliappan, A.L. on the "Need for a Shift in Pedagogy for Teaching Fundamentals of Planning Education" shows that the first semester studio in several planning schools deviates from this presumed understanding. According to the authors, this is a "historic deviance" and the main cause of this deviance is historically close link of planning with architecture. I may also add that this historic deviance continues even today in Indian planning schools for three additional reasons. First, planning schools have always been dominated by faculty holding basic educational qualifications in architecture, which makes it easy for them to continue to underline architectural principles rather than learn newly formed planning principles. Second, planning students joining undergraduate planning programs come with science backgrounds having studied physics, chemistry, and mathematics in higher secondary schools. While planning is a comparatively less-specific field as it is more about the study of planning processes and also that it attempts to resolve what are famously known as "wicked problems" (Rittel and Webber 1973), teaching architecture-centered studios becomes easier for the planning faculty at least in the first semester. Lastly, architecture departments have been either historically involved in introducing new undergraduate planning programs or wield enough influence through academic committees and executive committees in planning schools that to avoid architecture-centered studio in the first semester becomes inevitable. Authors argue that because of this "historical deviance, very often the students find it difficult to relate knowledge gained in the first semester studio to the subsequent studios where planning content dominates."

This chapter proposes "a relook at the pedagogy adopted for teaching the fundamentals of physical planning education. For this purpose, the authors discuss the most frequently adopted methods of teaching in the first planning studio highlighting their merits and demerits. Authors also share their own pedagogical experimentation in teaching this studio. After a comprehensive review and analysis of various teaching approaches, including learning from experimentation where they emphasize a need for a major shift in pedagogy for the first semester planning studio in order to reorient the students towards the field of planning." However, recently introduced new syllabus for Bachelor of Planning degree programme at SPA New Delhi resolves this problem to a large extent.

We all care about the discipline of planning and wish that planning profession should have a greater sway in the society. The next chapter on "Spreading Planning Knowledge in General Education" attempts to do exactly that. This chapter by Champa, H.S. and Gayathri Viswanathan intends to widen the scope of planning education and eventually the reach of planning field. In order to do this, the authors propose that teaching of planning should begin in the school so that children are able to know their towns and cities better from their childhoods, albeit in non-professional ways and internalize at least some of the major issues facing their cities. The authors propose four ways to spread planning education in society. These include first specialized courses in the form of Bachelor of Planning and Master of Planning in planning schools where student planners formally learn planning skills before they could practice. Second, planning should be introduced as a compulsory subject in colleges and universities for students graduating in economics, sociology, anthropology, etc. both in undergraduate and postgraduate courses. Third, planning as a subject should be introduced at high school level because a large percent of these students will live and work in the city, but will not go to the university for higher education due to high drop-out rates in India. Fourth, as also recommended by Rolee Aranya and Chetan Vaidya, and D.S. Meshram and Swati Meshram, training programs for city managers, policy makers, advisors, researchers, and private sector operators should also be started. Lastly, authors propose that we should also promote university–community linkages in order to widen the scope of planning education in the country. This theme is also taken up by several authors in this volume.

Housing and Urban Development Corporation is the national housing and infrastructure finance institution. The chapter on "Integrating Planning Knowledges: A Case of HUDCO and a Way Ahead for Better Planning" is written by Girish Karnad TG who works for this organization and presents an insider's view. The author shows "how HUDCO has been integrating various aspects of planning Knowledge for the development of Karnataka state. The chapter also seeks to analyze the existing gaps in planning knowledges and offers suggestions for improving planning education and urbanization policy for better planned and improved habitats."

The last chapter in the second part of the book is written by Bhawana Vasudeva. She focuses on the "Field Experiences of an Interdisciplinary Research in Planning: Stakeholders' Perspectives on a Small River in Gujarat." By focusing on the

upstream region of the River Vishwamitri, she attempts to understand the stakeholders' perspectives on a 45-km stretch of the river. The river Vishwamitri is a small seasonal river, which flows through Vadodara, a fast developing industrial region, and faces multiple issues and problems. Through use of number survey techniques, the author attempts to understand the issues of river's management and development. The river Vishwamitri also has religious significance as well as it is used as a common pool of natural resources for surrounding rural areas. In order to understand the selected stretch of the river, the author shows the value of use of multiple techniques (Questionnaire Surveys, Photo Preference Survey and Focus Group Discussions) for gathering planning knowledge for restoring the old glory of the river.

1.4 Urban and Regional Planning Ethics

The third part of the book also contains six papers. The first paper by Ashok Kumar on the "Role of Silences in Planning: Spatiality, Diversity and Participation" dwells on the significance of silences in shaping planning education and practice. According to the author, planning education and planning educators are unable to relate with silences as they perceive silences not being part of discourse and communication and hence miss out on an important aspect of planning. It is believed that by focusing on silences, certain important planning concerns and spatial injustices could be highlighted, which at the present moment planning schools clearly ignore and exclude. Planning schools in India have silenced several aspects which are an integral part in the western planning schools. In India, planning education privileges land use planning and materiality of space, and remain absolutely silent in the sense of exclusion regarding interpretation of space and spatiality (see for details Soja 2003, 2010, 2011; Lefebvre 1991). This has deep consequences for city planning because the students are trained only partially about "space," i.e., absolute space. Relative space and relational space do not even find a mention in planning education syllabi in India. Silences regarding diversity of gender, caste, and religion in planning theory in the Indian context are telling. Drawing from examples of large-scale acquisition of land for special economic zones and with the illustration of redevelopment of Dharavi, the chapter highlights the role of silences that lead to spatial injustices in planning practice. Another kind of silence that is discussed in this chapter is about perpetuation of misrecognition of vulnerable groups in cities by not providing any counternarrative to prominent discourses about informal settlements and the urban poor. Finally, the current fashion of participatory planning has not even begun to consider silences of people due to complexity, fluidity, and omnipresence of power as a relation. The author urges that analyses of silences in planning education deserve a central place alongside planning discourses to explicate the planning ethics in its entirety.

The chapter on "Ethics and Planning Education in India" by Poonam Prakash explores some of the challenges faced in teaching a course on planning ethics. This

is discussed through a review of curriculum, current context of planning practices and methods of teaching. The author highlights the increasing emphasis placed on urban planning in government policies and programs. However, for the profession to gain legitimacy, it has to address the issues of self-regulation and adherence to shared set of values. Planning in the fast-changing context seems to be losing, if it ever has developed the fundamental values of planning profession. Review of planning curriculum content reveals increased emphasis on teaching of planning ethics. However, teaching of ethics is embedded in the larger context of planning practices. Drawing from the examples of plan making in Delhi, she shows how planning practices seem to be floundering on fundamental values of the profession like health and safety, special care for the disadvantaged and equitable distribution of material resources. According to the author, methods of teaching planning ethics have become a very challenging and critical task for planning faculty. The objective of teaching planning ethics should not be limited to ethical familiarity in the form of code of conduct or ethical sensitivity in the form of theories of moral reasoning but on ethical decision-making in actual practices by developing abilities of planning students and practitioners to reflect and evaluate their own values and social behaviors.

Nitin Saolapurkar's chapter on "Ethics in Town and Country Planning Education in India—Trends and Future Prospects" highlights implications of rapid urbanization on the requirements of planning professionals in India particularly after the opening up of the private sector. This gap between the requirement of planners and the current supply of planners is viewed by the author as an opportunity for planning to widen and deepen its reach in a free market scenario. Public–private partnerships are particularly regarded as an appropriate mechanism for gap filling. The next three chapters explore ethics from the perspective of environmental ethics in planning. Abdul Razak in his chapter explores a link between environmental ethics and educational ethics. According to him ethical principles in planning include creation of built environments, which foster harmony among different groups as well as between people and natural environments. While religion and philosophy provide a lot of knowledge about ethics, its application in real life situations is problematic. The chapter contributed by Ravishankar D. and others explores the relationship between sustainable development, ethics, and planning education. According to the authors, the assumption of happiness based on consumption and the sense of material gratification has triggered over exploitation of nature leading to the depletion of resources at a faster pace directly affecting peace and harmony in the Indian society and the city. Drawing on Sue Hendler's work on ethical behavior in planning, the authors draw a pyramid of individual ethics. The authors argue that planning education provides a link between ensuring ethical behavior to achieve the goal of sustainable development.

The chapter by S. Ramesh on "Value Education in Planning for an Effective Professional Outreach" provides insights about ethical planning education. He develops a concept of "value education" defined as professional training premised on morals and ethics, which encompasses all spheres of teaching–learning processes. To implement this concept in planning education, he suggests training of

faculty, introduction of concepts like observed learning outcomes, and introduction of modern technologies such as IT and e-learning programs. He concludes by highlighting some of the conceptual issues of value education that need to be addressed in planning education, and ends by saying that a balance has to be struck between efficiency demands of education and morality demands of planning in general (also see Smith 2007).

1.5 International Perspectives on Planning

Five papers make up the last part of the book before conclusions. John Minnery's chapter on "The Place of Time in Planning Education" opens this part of the book. He argues that planning has generally focused on three aspects: importance of place to individuals and communities, attachment of communities to place, and the role of planners and other professionals in creating and modifying built environments. These three elements collectively are termed as "place-making." In this chapter, the author underscores the point that the fourth most important dimension of time is missing from planning education and professional practice. It is important to note that "for both planning practitioners and planning educators" the discipline of time dimension is critical in a number of important ways. Planning in fact should be about yesterday and today as well as about tomorrow. The dimension of time is discussed by linking past, present and future through the idea of "path dependence." According to the author, all places "exist at some moment in time and are subject to the changes that stem from the passage of time. So planning practice and education that aim at the creation of better physical places should acknowledge that these better places are contained within an envelope of time. Both planning profession and planning education need to be about 'tomorrow, today and yesterday'. This means they should recognize planning's future orientation, its concern to improve present conditions, and the lessons that can be learned from the past." Let me add that the fourth dimension of time is highly relevant for India's increasing urbanization level where timely implementation is the essence of any planning policy or effort. Time is also important for planning education in India in terms of seasons where large number of people die because of extreme weather conditions. Time is crucial for the provision of infrastructure in expanding and exploding cities and towns in India. Time and space are co-producers of built environment. Indian planning schools also need to incorporate these uniquely local dimensions of time.

The paper written by Raffaele Paloscia attempts to develop a "theoretical and methodological approach called *Territorialist Approach*" whose central concept is *Territorio* as manifest in space and time, and of the convergence of the local and global knowledges expressed in specific contexts from the different types of man–nature relationships to the culture of work and production, from local social practices and ways of life to the different physical, historical, and architectural components of urban and rural fabrics. All these elements constitute the multi-faceted and ever-evolving cultures and identities of places, cities, and regions

generating the very specific physical and emotional landscapes when territories relate to their inhabitants'. Raffaele Paloscia argues that planning education should stem from the *territorio,* where local communities are the main agents of change. Planning schools have the responsibility to identify relevant tools and techniques to bring about "ethical and progressive transmission of knowledge to the students" through a multidisciplinary approach. An experimental path called LabPSM is developed through global collaboration with deep involvement of this author since the last several decades with a particular focus on "innovation in human resource training and promotion and enhancement of values and potentialities of local territories. A particular attention has been paid to the use of innovative media use and other articulations familiar to new generations to investigate, decode, and represent urban analysis results and consequent plans."

The chapter written by Geraint Ellis, Brendan Murtagh, and Lisa Copeland concerns itself with the idea of research-led practice-engaged teaching. After a review of the evolution of the UK planning education, the main challenges and opportunities facing planning schools in the UK are examined. The chapter highlights that during the last several decades the UK planning schools have enjoyed mutually beneficial relationship with the planning profession and the Royal Town Planning Institute (RTPI). Changing social, economic, and political scenario locally and globally has profoundly changed this relationship. The authors conclude that "in recent years there has been increasing tensions between planning schools subject to a variety of external pressures and the planning profession. There are broad concerns about the future direction of planning education in the UK related to the viability of planning schools as distinct academic units and the engagement of students taking planning courses." The authors propose that in order to take care of this ambivalence "a focus on research-led practitioner engaged teaching offers a way of addressing some of the priorities of UK planning education." This appears to be a global trend with sustained triumphalism of neoliberal policies world over. Indian planning schools could certainly learn from the UK tradition of research-led practitioner engaged teaching.

The paper titled "Indicators: From Counting to Communicating" by Javier Martínez and Emile Dopheide explores the quantitative and qualitative significance of indicators. To teach indicators in their full expanse is a critical challenge as comprehensive understanding of the process of development indicators is needed. This process could involve "counting, construction, and operationalization of indicators" as well as "policy and learning related steps that require a critical and reflective" thinking. The authors also show that full utilization of indicators could be realized only if we are able to move from "traditional and mechanistic" aspects of indicators to their "critical" content. This continuum must be transcended by planning educators as well as planning practitioners. The authors present their findings based on the 20 years of research. On the basis of their experience, Javier Martínez and Emile Dopheide believe that "indicators have a great potential to bring the worlds of research and education, and the world of planning and policy making closer together. We believe that in education process it is of utmost

importance to emphasize the shift in the role of indicators from the traditional counting and description towards a more critical and communicative role." The chapter presents a framework for explicating the existing dichotomies and also presents ways to make movement from development of indicators to reflective thinking based on these indicators.

The chapter by Peter Cockhead and Hemalatha M.C. discusses the successful experience of "Sharing Planning Skills across Borders" through international charity (VSO) volunteers who are engaged in building planning capacities in Zambia. Both the authors have been involved in this capacity building programme and have personally contributed to the success of transfer of planning skills in Zambia. "They brought to it very different backgrounds: an Indian architect-planner trained at the University of Mysore with extensive international consultancy experience in the Middle East, and a retired Scottish town planner who has worked in government, consultancy and academia in Scotland, Europe and Africa." In this chapter, the authors "assess the impact of the VSO programme on planning in Zambia and on the volunteers themselves. They also examine planning approaches and skills appropriate to planning in contemporary Africa particularly the need for planning with informality. They reflect on the broader lessons for planning education and training through a case study of the preparation of an Integrated Development Plan." The authors further show that capacity building efforts could be sustained only if planning programs are started in Zambia. With this intent, the new two-year M.Sc. in Spatial Planning was launched with an initial intake of 18 students in October 2013. The two distinct and innovative features of this programme are that first it is focused on the informality of city development and second it integrates five cross-cutting themes: "access to land; actor collaboration; climate change and sustainability; informality, and spatial planning; and infrastructure." This is perhaps the first planning programme globally, which has informality as its fundamental concerns.

1.6 Conclusions

After a brief introduction to the contents of the book, we move on to the first part of the book containing four chapters highlighting interlinked theme of emerging concerns of modern Indian planning education. As India aspires to be a world power in the near future, the concerns raised in the first part of the book assume added urgency. Among other things, to make Indian cities smart, adequate number of planners will be required. Production of 8,000 planners every year for the next 20 years appears to be a herculean task considering the fact that at present we only produce 600 planners per year. Government of India set up two new SPAs during the last decade after the first SPA was set up in 1955. It took 50 years to add two SPAs; this is tortoise speed; global ambitions of young India cannot wait. As discussed in the following chapters, Ministry of Human Resource Development is

eager to increase the supply of planners by setting up new planning schools. How fast India would be able to generate adequate number of planners remains the government's concern.

References

Appadurai, A. (2006). The right to research. *Globalization, Societies and Education, 4*(2), 167–177.

Chatterjee, I. (2014). *Displacement, revolution, and new urban politics*. Sage, New Delhi: Theories and Case Studies.

Kumar, A. (1995). *Planning practice and education in India*. New Delhi: Reliance Publishers.

Lefebvre, H. (1991). *The production of space*. London: Blackwell.

Rittel, H. W., & Webber, M. M. (1973). Dilemmas in a general theory of planning. *Policy Sciences, 4*, 155–169.

Sandercock, L. (2003). Cosmopolis II: Mongrel cities of the 21st century. Continuum, London.

Smith, D. M. (2007). Moral aspects of place. *Planning Theory, 6*(1), 7–15.

Soja, E. (2003). Writing the city spatially. *City: Analysis of Urban Trends, Culture, Theory, Policy, Action, 7*(3), 269–280.

Soja, E. (2010). Spatializing the urban. *Part I, City: Analysis of Urban Trends, Culture, Theory, Policy, Action, 14*(6), 629–635.

Soja, E. (2011). Spatializing justice—Part II. *City: Analysis of Urban Trends, Culture, Theory, Policy, Action, 15*(1), 96–102.

Part I
Emerging Ideas of Urban and Regional Planning

Chapter 2
Energizing Planning Education in India

Diwakar S. Meshram and Swati Meshram

Abstract Spatial planning and development activities have had a major boost due to policies of liberalization. Changes in the economy and industrial policies, and emerging globalization trends are quite visible in urban centers and in the development of special economic zones, new townships, high-tech cities, knowledge cities, cyber cities, IT cities, green Cities and smart Cities. This has created new avenues and opportunities for town and country planning educators. Furthermore, urban population is likely to increase from present 377 million to 600 million by 2031 and 900 million by 2051. Number of cities and towns, which increased from 5,161 in 2001 to 7,993 in 2011, will become more than 10,000 by 2021. In addition, devolution of planning functions to urban local bodies and gram panchayats under the 73rd and 74th Constitutional Amendment Acts would further expand spatial planning and development activities. All these developments clearly indicate that the importance of the profession of town and country planning would gain respectability. It is imperative to look at the challenge of educating and training planning manpower as quality of manpower, among other things that would determine the economic progress in the country. This chapter examines the human resource development requirements and challenges faced by the planning educators and planning schools.

Keywords Undergraduate and postgraduate planning education · Schools of Planning and Architecture · Production of planners · Planning profession

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2.1 Introduction

Spatial Planning and development activities got major boost in India due to liberalization of economy and industrial policies, and emerging globalization trends, which are quite visible and can be noticed in urban areas in the form of special economic zones, new townships, high-tech cities, knowledge cities, cyber cities, IT cities, green cities, and smart cities, which are likely to create new avenues and opportunities for town and country planners. Change would be more pronounced because urban population is likely to increase from present 377 million to 600 million by 2030 and 900 million by 2050. Moreover, the number of cities and towns has increased from 5,161 in 2001 to 7,993 in 2011 and will increase to more than 10,000 by 2021. In addition, devolution of planning functions to *municipalities and gram panchayats* (urban and rural local bodies respectively) under the 73rd and 74th Constitutional Amendment Acts would further encourage spatial planning and development activities. Thus, all these developments clearly indicate that the task before town and country planning educators would be enormous in terms of trained manpower requirements in planning.

It is well known that the economic progress of the country is invariably linked with the quality of manpower to improve the capacity of rural and urban local bodies in order to prepare them to plan for the existing and future towns and cities. This is crucial as urban settlements, generators of economic momentum, contribute 60 % to the national GDP. By 2051, this share is likely to rise to 75–80 %. In this context, human resource development through town and country planning education is the challenging task before the planning schools and other institutions for producing quality planning in large numbers.

2.2 Planning Education in India

Functioning since 1951, the Institute of Town Planners, India was instrumental in the establishment of the School of Planning and Architecture, New Delhi in 1955. Subsequently, Indian Institute of Technology was established in 1956, which started Master's Program in the Department of Architecture and Regional Planning. The postgraduate programs in most of the institutes are of a generalized nature except SPA New Delhi, which offers specialization in 12 disciplines. The Institute of Town Planners, India was also instrumental for initiating action and persuading the then Ministry of Education, Government India and eventually setting up the first undergraduate program in planning at the School of Planning and Architecture, New Delhi in 1989. As a follow up of this initiative, the ITPI was also involved in setting up SPAs at Bhopal and Vijayawada. Both of these schools also offer Bachelor of Planning degrees. Today, there are 21 institutions imparting town planning education at the postgraduate level and 5 at the undergraduate level (see Table 2.1; also see Sachithanandan 1995).

Table 2.1 Planning schools or university departments imparting planning education in India

S. No.	State	Name of the institution	Programmes offered	Student's annual intake
1.	Andhra Pradesh	Department of Urban and Regional Planning, Jawaharlal Nehru Technological University, Hyderabad	1-UG and 1-PG	50
2.	Andhra Pradesh	School of Planning and Architecture, Vijayawada	1-UG	40
3.	NCT Delhi	School of Planning and Architecture, New Delhi	1-UG and 1- PG with 5 specializations	90
4.	NCT Delhi	Institute of Town Planners, India, New Delhi	Associateship Exam.	20
5.	Gujarat	School of Planning, Centre for Environment and Technology (CEPT) University, Ahmedabad	1-PG Course with 4 specializations	60
6.	Gujarat	Sardar Vallabhai National Institute of Technology (SVNIT), Surat	1-PG Course	18
7.	Gujarat	Arvind Bhai Patel Institute of Environmental Design, Vallabh Vidhya Nagar	1-PG Course	15
8.	Karnataka	Institute of Development Studies, University of Mysore	1-PG Course	20
9.	Madhya Pradesh	Maulana Azad National Institute of Technology (MANIT), Bhopal	1-PG Course	15
10.	Madhya Pradesh	School of Planning and Architecture, Bhopal	I-UG Course	40
11.	Maharashtra	Department of Architecture and Planning, Vishvesvaraiya National Institute of Technology, Nagpur	1 PG Course	20
12.	Maharashtra	College of Engineering, Pune	1-PG Course	20
13.	Punjab	Guru Ram Dass School of Planning and Architecture, GNDU, Amritsar	1-UG Course and 1-PG Course	50
14.	Tamil Nadu	School of Architecture and Planning, Anna University, Chennai	1-PG Course	20
15	Uttarakhand	Department of Architecture and Planning, IIT, Roorkee	1-PG Course	10
16.	West Bengal	Department of Architecture and Regional Planning, IIT, Kharagpur	1-PG Course	20
17.	West Bengal	Department of Architecture, Town and Regional Planning, Bengal Engineering and Science University, Kolkata	1-PG Course	19
18.	Kerala	College of Engineering, Thiruvananthapuram	1-PG Course	10

(continued)

Table 2.1 (continued)

S. No.	State	Name of the institution	Programmes offered	Student's annual intake
19.	Haryana	Deenbandhu Chhotu Ram University of Science and Technology, Murthal, Sonipat	1-PG Course (Regular)	20
20.	Jharkhand	Birla Institute of Technology, Ranchi (MESRA)	1-PG Course	15
21.	Rajasthan	Malaviya National Institute of Technology, Jaipur	1-PG Course	28
Total				600

Source Institute of Town Planners, India (2015); also see Ansari (1995)

This model of planning education, both at the undergraduate and the post-graduate levels, provides education through studios, theory subjects, projects and assignments, and thesis. The theory subjects mainly relate to urban, regional and rural planning theories and processes, quantitative methods and analytical tools, components of settlements such as housing and transportation system, conservation of heritage, environmental and ecological aspects, planning legislation and information system, etc.

It is pertinent to mention here that during the review of the various schools and university departments for accreditation by the ITPI, it is noticed that the students from some of the schools have never been exposed to real-time practical problems of a city or a town. They have not even visited any Town and Country Planning Organization of Government of India, which is the technical arm of the Ministry of Urban Development, Government of India; town and country planning departments of states, which are responsible for advising state governments on urban planning issues and also for implementing central and state polices and schemes; housing boards, which are responsible for implementing policies and schemes related to housing; development authorities, which are responsible for implementing master plans; and municipal corporations, urban local bodies, which are responsible for preparation of local area plans besides their implementation and enforcement. Students are not even familiar with the working of these departments and are not even aware of vertical and horizontal linkages between these agencies. Therefore, once these graduates come out of these universities, they are not found suitable by the industry and other users. Students therefore need to be made familiar with the working of these agencies and are also required to be exposed to slums, shopping centers, residential areas, industrial areas, etc. so that they can appreciate and understand problems of these areas. It is imperative because these sites are the laboratories of planning for testing the efficacy of new concepts, practices, and technologies being devised from time to time.

Yet another glaring example of the present system of education has been that the students are not aware of important central sector and state sector schemes and programmes like the Jawaharlal Nehru National Urban Renewal Mission (JNNURM), Urban Infrastructure Development Scheme of Small and Medium Towns (UIDSSMT), Environmental Improvement of Urban Slums (EIUS), Mega City Project, besides private sector ventures such as SEZs, IT parks, knowledge cities, freight corridor, etc. It also needs to be mentioned that in some of the schools, students are not exposed to the latest technological advancements in the implementation of development plans like transfer of development rights (TDR), accommodation reservations (AR), land pooling, town planning schemes (TPS), and they are also not exposed to the terminologies like remote sensing (RS), geographic information system (GIS), global positioning system (GPS), etc. Due to these reasons, the students, as soon as they come out of the Planning Schools, find it difficult to absorb themselves in formulation, implementation, monitoring, and enforcement of master plan provisions including projects taken up under the various schemes of central and state governments. Through these schemes, national- and state-level urban strategies and policies are implemented and therefore, endeavor needs be to made to enable the students to be equipped with knowledge relevant to taking up planning jobs from the day one once they come out of a planning school or university department. This needs to be given high priority in India's planning education environment.

In the prevailing education system, major emphasis is also being given lately on project formulation and evaluation techniques. The existing models of planning education are oriented more toward physical aspects of planning while in western countries the system has secured a multidisciplinary form. This leads to inadequacy of skills among physical planners from main stream of planning and development process in the country. Thus, it is necessary that planning education is energized so as to form part of the mainstream of planning organizations and other stakeholders engaged in plan formulation, implementation, and enforcement of development plans besides framing and comprehension of policies, programmes, and projects.

As stated earlier, imparting planning education at the postgraduate level is the common feature in all the schools offering courses of two years duration in India. At present, there are 21 schools or university departments in various universities and IITs imparting town and country planning education at the postgraduate level. The School of Planning and Architecture, New Delhi provides specialization in Urban Planning, Regional Planning, Housing, Traffic and Transportation, and Environmental Planning. The CEPT University, Ahmedabad also at present provides specializations in Urban and Regional Planning, Environmental Planning, Housing, and Infrastructure Planning. All other schools and university departments impart general courses in town and country planning. In addition, all planning schools and university departments now register candidates for doctoral research. To date, very few planners hold Ph.D. degrees including those who are in teaching positions. The number of doctoral program candidates is beginning to increase solely because the UGC has made it compulsory to acquire Ph.D. for promotion to senor academic positions.

The Institute of Town Planners, India taking into consideration almost 30 years of the experience of planning education at postgraduate level, during the early 1980s realized that there is a need for starting undergraduate program in planning and accordingly took up the matter with the then Ministry of Education, Government of India and designed a model curriculum with the objective of producing planners with basic capacity of dealing with a variety of planning situations and delivering necessary services in a professional manner. The Bachelor of Planning degree was proposed to be treated as a full professional qualification like Bachelor of Civil Engineering or Bachelor of Architecture in respective disciplines. The School of Planning and Architecture, New Delhi was the first to start Bachelor of Planning Program in 1989 followed by Guru Ram Das School of Planning and Architecture, GNDU, Amritsar; and Department of Urban and Regional Planning, then Jawaharlal Nehru Technological University, Hyderabad followed by School of Planning and Architecture in Bhopal and Vijayawada. At present, there are 20 planning institutes and university departments imparting postgraduate-level town planning education including those five institutions imparting undergraduate planning education. In addition, Institute of Town Planners, India since 1955, through its Town Planning Examination Board is conducting Associateship Examinations of the ITPI. Associateship of the ITPI is considered at par (by Government of India for the purposes of town planning jobs) with postgraduate planning qualifications offered by various accredited planning schools and university departments. Recently, the ITPI has also entered into a memorandum of understanding with Karnataka State Open University for conferring Master of Planning degree to candidates who successfully complete their Associateship Examinations of the ITPI. Total intake of students in these 21 Institutions is 600 per annum (Table 2.1; Meshram 1995; Meshram and Singh 1990).

Thus, over the years, town and country planning education has emerged as full-fledged discipline with a status independent of architecture. In fact, architecture discipline deals with projects at micro level whereas town and country planning offers broader policy context at national, state, regional, and local levels through state perspective plans, regional plans, metropolitan plans, district development plans, urban development plans, and action area plans for urban and rural areas.

2.3 Shortage of Qualified Town Planners

Shortage of qualified town and country planning professionals has been noted from time to time to meet the challenges emerging in the country to take up tasks of planning at various levels. The magnitude is huge because as per 2011 Census there are 35 states, 640 districts, 5,925 tehsils or talukas, 640,867 villages, and 7,933 towns and cities, while there are at present only about 4,500 qualified town and country planners in the country.

In the annual Town and Country Planners' Seminar organized at Bangalore in September 1960, T.J. Manickam, President, ITPI raised the issue of acute shortage

of qualified town and country planners in the country due to which planning tasks were being given to architects and engineers. Incidentally, Jawaharlal Nehru, the first Prime Minister of India in his Inaugural Address stated that a person who is an engineer, a very good engineer may not necessary be a good planner; similar is the case with good architects.

In 1966, a Committee of Ministers on shortage of Town Planning Personnel noted: "The planning (spatial) must be performed in twofold manner, namely (a) the determination of policies including social, economic and strategic, and (b) the preparation and execution of plans for the use and development of land in accordance with the activities." The Committee of Ministers also noted that town planners not only have to prepare a plan but also have to implement it strictly. In this view, town planners must have adequate powers and authority to prepare and enforce development plans.

To assess the need for planners, Secretary, Ministry of Urban Development, Government of India convened a meeting on 3 April 2007 of all the heads of the planning schools and university departments imparting town and country planning education along with the ITPI. In this meeting, various issues emerged and accordingly Ministry of Urban Development, Government of India identified the following actions areas:

- Constitution of metropolitan and district development committees should make imperative preparation of metropolitan and district development plans. Here, the role of town planners becomes important as both these are essentially spatial development plans;
- Preparation of both these plans has to be undertaken by qualified town planners which should also be made mandatory. There should be district development plans for all the districts in the country. The essence of district development plans should include designing all urban and rural settlements as per their potential, hierarchy, and needs, which will not only be helpful in bridging rural urban divide but also pave the way for balanced spatial development. This will also offer solutions for overcoming problems of backward areas and prioritizing investments as per requirements of rural and urban settlements right up to village level. This will enhance the importance of regional planning;
- District Planning Office may be established on the lines of District Information Center of National Information Center (DISNIC); and the objective of the district development office will be to prepare district development plans as well as coordination for all public offices and departments at the district level.

Ministry of Urban Development, Government of India has further observed that implementation of the JNNURM will go a long way in strengthening infrastructure required in urban settlements. In order to effectively implement the JNNURM, it is essential that City Development Plans or CDPs are prepared by qualified planners who would also be involved in the implementation of projects arising out of such plans. This will ensure planned development of urban centers forestalling haphazard growth. To attain this in the 5,161 towns as per 2001 Census, is difficult as India only has 3,000 town and country planners that roughly works out to less than

one planner per urban settlement. This is grossly inadequate and just cannot cater to the growing needs of urban settlements. Accordingly, Ministry of Urban Development, Government of India, has identified the following action areas:

- All urban local bodies (ULBs) should employ qualified town and country planners;
- State governments should develop cadre of town planners and also ensure timely career promotions;
- In case there is a public–private participation for implementation of projects, planners should be employed as consultants and advisors. If ULBs resort to outsourcing for preparation of master plans, these exercises should be undertaken by qualified town planners only; and
- If all towns will have town planners made available, there would be huge demand for planners, which needs to be met by planning schools and university departments.

In the meantime, Ministry of Human Resource Development, Government of India also set up a Committee of Experts in Town Planning and Architecture to frame "Policy Guidelines to Strengthen Architecture and Town Planning Education." The committee in its report that was submitted in July, 2011, among other recommendations, highlighted that a multipronged strategy needs to be adopted to bridge the growing gap between supply and demand of trained professionals in planning. It broadly identified three areas for policy consideration in the light of the need for practical training namely: formal professional town and country planners; support staff in the field of town planning; and skill upgradation (Ministry of Human Resource Development 2011).

This report estimated that India needs 300,000 town and country planners by the year 2031, and also underlined that to accomplish this challenging task, greater involvement of professional bodies like the Institute of Town Planners, India would be necessary. They divided these figure into two categories, i.e., qualified planning professionals and qualified supporting staff as given in Table 2.2.

Table 2.2 Planning professionals and supporting staff, 2031

Qualified planning professionals		
1.	Through formal Bachelor of Planning Courses	120,000
2.	Through formal Master of Planning Courses (lateral entry)	40,000
Subtotal		160,00
Qualified supporting staff		
1.	Through formal ITPI and new Diploma Courses	80,000
2.	Through in-service Upgradation Programmes	60,000
Subtotal		140,000
Total		300,000

Source Ministry of Human Resource Development (2011).

- Intake in the three SPAs will be enhanced and 14 new SPAs should be started in major metro cities with minimum intake of 75 for Bachelor of Planning courses and 60 for postgraduate planning program each.
- In addition to the enhancing capacity of existing institutions, planning courses should also be opened in the NITs, new state-level SPAs with a total intake of 40 seats in each course but by 2031 intakes should be made similar to that of SPAs for undergraduate programs, i.e., 75 for Bachelor of Planning courses but gradually for postgraduate planning programs the intake should be reduced to 30 by 2031 onward.
- The balance of seats could be considered by the UGC and state-recognized universities through affiliated institutions for Bachelor of Planning courses only.

2.4 Thrust Areas for Energizing Town Planning Education

Taking into consideration the above, demand for qualified town and country planners at various levels could be met. But critical areas for initiating and improving training should relate to:

- Need-oriented training programs should be also initiated, which are responsive to the requirements of urban and rural local bodies and state town and country planning departments, housing boards, development authorities, and other agencies handling urban planning and development and urban management;
- Focus on indigenous planning practices and local resources and issues should also be made;
- Attempts should be made for the training of senior planners as trainers, who could in turn train junior planners;
- Governments should support decentralization and regionalization of training efforts;
- Vertical and horizontal linkages with all concerned or cognate agencies, which can contribute at central as well as state level to the training and education processes encompassing training management, training material development, conduct of training and research, etc.
- Sustainability of training mechanisms, regional- and state-level training institutions as well as universities and other institutions.
- Exposure to the latest technological innovations.
- Focus should be also given to the latest concepts of sustainable development, inclusive planning and development, smart cities, etc.
- Postgraduate courses in planning schools need to be modified especially in the schools where bachelor-level programmes have been initiated in view of the course contents. Duplication of courses at both levels should be removed.

- Gap between current needs and knowledge of the faculty in the field of planning, management, and development skills needs to be identified and timely actions should be taken to upgrade abilities of teachers and course content.
- Teaching faculty needs to continually undergo training so that they get refreshed with latest innovations and technologies in the profession once every few years.
- Most of the faculty does not possess practical field experience. This requires pooling of facilities, sharing of expert knowledge, establishing networks linking industries, research and development organizations, other teaching institutions and various user organizations. Faculty improvement programs and foreign visits may be also arranged.
- Normal practice in Indian situations is to leave curriculum development as an exercise to academic councils of academic institutions. Practicing professionals in the private and public sectors are usually excluded from these exercises. The curriculum should be based on current societal needs and should be decided upon in consultation with professionals practicing in the field.
- Planning education must also include study of social sciences in order to avoid students' training becoming lopsided without any human touch. The neglect of social sciences and humanities in the context of education has been noticed by national and international policy makers including UNESCO.
- Existing models of planning education are more focused toward physical aspects of planning while in western countries the system has moved to multidisciplinary mold. This leads to isolation of physical planners from mainstream planning and development process globally.
- Town and country planning being a multidisciplinary subject, curricula should have the right mix or proportion of various cognate subjects from different disciplines in addition to professional courses that constitute the core academic program.
- Need to provide flexibility in the choice of some subjects depending upon the interest of individual students. Recognizing this need, three tier structure needs to be introduced for curriculum development, namely: (i) core subjects; (ii) subsidiary subjects; and (iii) elective subjects.

Accordingly, an attempt has been made in this part of the paper to identify action areas for strengthening planning education under various heads like increasing the number of students' intake, development of the student community; development of town planning education, faculty development, and inter- and intranetworking among educational institutes and industry, etc.

2.4.1 Increasing Number of Students

- Efforts needs to be made to reach out to all the 10 + 2 level educational institutions to attract sizable number of students toward Bachelor of Planning and

also to approach all important colleges in the country to attract students for Master Planning programs.

- Efforts should be made to give wide publicity in press and electronics media to attract more students toward planning courses.
- New schools of town and country planning need to be started not only in central and state sectors but private sector should also be motivated to start new planning schools with both bachelor and master programmes in town planning. The Institute of Town Planners, India in this direction, has taken the lead by approaching the Ministry of Human Resource Development to start four new schools of planning. It is encouraging to note that the MHRD has started two new schools of planning in central sector: one at Bhopal and other at Vijayawada. But it is necessary to start at least one school of planning in each state, and at least one in the north-east region immediately.
- In the light of discussions held in the meeting convened by Secretary, Urban Development, Ministry of Urban Development, Government of India needs to initiate the action to advice and direct local bodies and development authorities to deploy qualified town and country planners on town planning jobs and to create and develop a cadre of town and country planners and also to ensure timely career promotions so that more students get attracted to town and country planning education and profession.
- There is a need to create national-level cadres for town and country planners. This will make the profession of town and country planning more definitive and attractive and in turn attract young students toward town and country planning education and profession.
- Till adequate number of new schools are started, the intake in the existing planning schools and university departments imparting town planning education should be increased considerably, but not at the cost of quality education.
- All the existing town and country planning schools should be encouraged to start Bachelor of Planning programmes on priority by providing financial and technical support.

2.4.2 Development of Students Community

- To inculcate the habit of competing and participating in competitive environments and in order to improve the quality among students, the Institute of Town Planners, India should institute several types of new awards for the students on the pattern of Prof. V.N. Prasad Best Thesis Award which is being conferred on the best postgraduate planning student. Similarly, Awards need to be instituted for undergraduate-level students in addition to the best student award. These awards may be distributed not in the national congress of the ITPI but in NOSPLAN for which ITPI gives generous grant.

- The UGC, AICTE, and MHRD need to take a more liberal view for promoting the discipline of town and country planning by allocating separate funds for Ph.D. scholars each year.
- The UGC, AICTE, and MHRD should earmark exclusive funds for sponsoring QIP and CIP and also for developing teaching materials specific to town and country planning discipline based on recent case studies and field experiences in India and abroad (ITPI 1998).
- Planners should be encouraged to opt for administrative services for which the UPSC needs to consider town and country planning as one of the optional subjects like any other discipline. Additionally, the UPSC should also consider the All India Town and Country Planning Services and similarly all states should also separately start state-level cadre of town and country planners.

2.4.3 Developing Town Planning Education

- Keeping in view the developing and diversifying economic scenario of the country, the curriculum of both undergraduate and postgraduate planning needs to be reoriented on priority basis under CIP. All India Board of Town and Country Planning Education of the AICTE has already drafted the revised curriculum for Bachelor of Planning which needs to be adopted by all schools irrespective of nomenclature adopted by these institutions.
- Dichotomy created by the AICTE by bringing B.Tech (Planning) under the purview of All India Board of Technical Education and Bachelor of Planning under the All India Board of Town and Country Planning Education has been creating problems in imparting undergraduate-level planning education because prescribing chemistry, physics, and mathematics as core subjects is mandatory in case of B.Tech (Planning) nomenclature. If this scheme is followed, it will be done at the cost of deleting very important and relevant core subjects of planning which ultimately leads to dilution of planning education.
- Initiatives are required to be taken for revision of Master of Planning programs as well so that the curriculum of Bachelor of Planning and Master Planning should be in tandem.
- The ITPI and AIBTPE of AICTE should explore the possibility of embedding recent trends in planning and technological innovations in designing human settlements and for implementation of development plans in curriculum so as to bring it at par with international standards.
- Seeing that new areas of concern are emerging in town and country planning discipline, initiatives to start new programs in the areas of urban planning and management, infrastructure planning and management, etc. need to be explored.
- It would be appropriate that all the planning schools adopt the nomenclature of Bachelor of Planning and Master of Planning in place of B.Tech (Planning) and

M.Tech (Planning) to achieve uniformity and avoid any possible confusion throughout the country.

- As the Institute of Town Planners, India also conducts the Associateship Examination, which is at par with the postgraduation in town and country planning, the ITPI needs to include other basic qualifications for admission into postgraduation in town and country planning, and not to restrict only to B.Plan or B.Arch or B.E. (Civil) or postgraduation in geography or economics or sociology because town planning is a multidisciplinary discipline. Admission to all planning courses should be open to students with postgraduate degree in anthropology, management, statistics, law, literature, etc.
- It is important to facilitate vertical mobility by allowing lateral entry to students with post-diploma not only for Associateship Examinations of the ITPI but also in the schools of planning and university departments. This will also ensure carrier promotions in town planning departments of central and state governments, semi-governments, local bodies, development authorities, and other parasternal agencies. This will also be in consonance with the policy of the AICTE. However, in case of certain inadequacies in some subjects, the students should be asked to qualify in the requisite cognate subjects.
- Planning curricula should be based on current societal needs apart from requirements of industry and various stakeholders. In addition, planning curricula should also focus on global issues like climate change, green planning, rising sea levels, environmental and ecological considerations, etc.
- Inclusion of social sciences in the planning curriculum is necessary and it can play a very important role because without studying these subjects, the students become lopsided robots without any human touch.

2.4.4 Faculty Development

- For upgrading the skills of teaching faculty, capsule programs for training of trainers should be initiated under the QIP. The scheme for training of trainers should be evolved at least for 2 years after completion of 8–10 years of teaching experience along with necessary component of field visits to successful projects in India and abroad to give exposure to teachers about the latest techniques and technologies.
- The ITPI should take a lead in organizing workshops, conferences for collaboration and interaction among professionals, educationists and researchers, for widening perspectives, so that educationists, researchers, and professionals can interact on the latest initiatives and innovations in profession and education.
- Due to opening up of the economy and liberalization of industrial policy, demand for planners has been increasing with better pay packages offered to most of the talented students in the private sector. This is true for private

educational institutes as well. Therefore, the need is to consider framing an appropriate policy to attract the most talented and competent persons in teaching.

- Ministry of Human Resource Development in consultation with Ministry of Urban Development, Ministry of Housing and Poverty Alleviation, Ministry of Rural Development, Ministry of Transportation, etc. should organize workshops, seminars, brain storming sessions, etc. so that teachers imbibe up to date knowledge and relate themselves to planning profession in innovative ways. This will give exposure to educationists to various schemes in state and central sectors, which are under operation, and through which central and state government polices get implemented. Educationists, researchers, and professionals should be encouraged by their employers to attend national town and country planners congress annually organized by the ITPI to deliberate on themes of national interest. This will also build strong interface between education and industry and will also give exposure to teachers regarding working and requirements of industry and profession.
- Institutional consultancy to faculty should be allowed by planning schools and university departments so that teachers can deal with contemporary projects and problems, and gain experience from successful projects and disseminate information to students. Students can also get involved in such projects so that they can also earn while they learn.
- The ITPI needs to take an initiative to institute the "Best Teacher Award" on the pattern of Prof. V.N. Prasad Best Thesis Award being offered by the ITPI for the best thesis to postgraduate planning students to encourage improvement in the quality of learning and teaching.

2.4.5 Inter and Intra Networking Among Institutes and Industry

- There are certain schools which are better placed in terms of their location and endowments due to which they are able to attract and retain better faculty and impart better teaching. Due to their location they get better exposure to various ongoing town and country planning activities in the country and about a particular region. Therefore, it would be advisable that all planning schools and university departments pool their facilities, and share their knowledge and experience by establishing a network among themselves and other institutions. This resource pooling and avoidance of duplication will go a long way in improving the profession of planning
- AICTE through its All India Board of Town and Country Planning Education and the ITPI through its regional chapters existing in almost all the states could take lead in establishing networks among planning schools, universities, planning departments, and IITs and interact with town and country planning

organizations and departments of central and state governments and other stakeholders.

- As the present model of town and country planning education gives more emphasis on studio work, thesis work is done without much emphasis on live problems and projects and requirements of local communities. Therefore, the Institute of Town Planners, India should assume a proactive role in fostering planning education through networking. Networking with schools of planning, profession, and industry would enrich abilities of planning students as they will be better placed to deal with contemporary problems and projects.
- ITPI should also take lead in establishing contact and networking with similar institutions like the Royal Institute of Town Planners, London; the American Institute of Certified Town Planners, besides schools and universities abroad, imparting town and country planning education, specifically to ensure that duration and content of Bachelor of Planning and Master of Planning programs attain a level of parity.
- ITPI needs to take up the issue of not recognizing 1 year Master Programs offered by some universities in different countries because postgraduate programs in India is of 2 years and 1 year postgraduate program being offered by other countries if recognized by MHRD, UGC, and AICTE, the students in India would be at a disadvantage because it is not possible virtually to cover the whole syllabus prescribed by AICTE, UGC, and ITPI for postgraduation in 1 year including a thesis.
- ITPI should disseminate not only knowledge about professional activities through their websites, journals, and newsletters but should also give more coverage to information regarding town and country planning education, research, and training so that the student community gets acquainted with the latest developments and innovations in the planning profession and education.

2.5 Conclusions

In view of the fact that the number of urban and rural settlements would increase manifold with increase in population, it is imperative to increase the number of qualified town and country planning professionals to meet this challenge. The basic premise for manpower training in town and country planning should be to focus on the needs of the industry, i.e., user agencies, government priorities, and other stakeholders. The gap between the requirements of the planning profession and the kind of education being imparted by planning schools and other institutions should be constantly bridged. Besides, planning education has to match with the requirements of the changing roles of town and country planners in the country in the light of fast-changing technologies and changing needs of the society and user agencies or industry for orderly and planned development of both urban and rural settlements.

References

Ansari, J. H. (1995). *Undergraduate Planning Education in India*. A paper presented in National Seminar on the theme Planning and Management of Planning Education in India held at School of Architecture and Planning, Anna University, Madras 1995.

ITPI. (1998). *ITPI Report and Recommendations on QIP and CIP on Town and Country Planning Education*, November 1998, New Delhi.

Ministry of Human Resource Development. (2011). *Report by Committee of Experts in Town Planning and Architecture for Policy Guidelines to Energize Architecture and Town Planning Education in the Country*, July 2011, Government of India, New Delhi.

Meshram, D. S., & Singh, S. (1990). *Professional Requirement of Spatial Planning by 2001*. A paper presented in 38th National Town and Country Planners Congress on the theme Emerging Challenges in Spatial Planning with focus on Man Power, Research and Education, held at Roorkee, April 1990.

Meshram, D. S. (1995). *Manpower Training Requirement in Town and Country Planning*. A paper presented in the Regional Seminar held at Department of Architecture and Regional Planning, Indian Institute of Technology, Kharagpur, 1995 on the theme Planning and Management of Town Planning Education in India.

Sachithanandan, A. N. (1995). *An Introduction to Planning Education*, in the Regional Seminar held at Department of Architecture and Regional Planning, Indian Institute of Technology, Kharagpur, 1995 on the theme Planning and Management of Town Planning Education in India.

Chapter 3
Planning Education for a Smart Urban India

Rolee Aranya and Chetan Vaidya

Abstract "The growth of India shall be written on the canvas of planned urban development" is the mission statement of the Ministry of Urban Development, Government of India. Infrastructure, technology, and smart urban development have been put high on the agenda of growth. At the same time, government aims to tackle the issues of housing and housing finance for economically weaker groups in urban areas. All legitimate priorities, but the key question to be raised is whether the country has the kind planners who can envisage and facilitate an urban growth encompassing both the need for modernization and the abject urban poverty that is evident in our cities? This is the question that the authors attempt to answer by first discussing the main urban challenges of large number and size of urban settlements; informality and inequality; climate change and attendant disasters; and institutional challenges embedded in the historical legacy of planning. The authors express concern about the gap in skills imparted to students in Indian planning schools and the complex challenges facing the planning profession: need for modernization of urban areas while addressing systemic issues of inequality and poverty. Even before dealing with the issue of quality of planning education, authors believe that it is crucial to point out that just to meet the gap between the total requirement of planners and the current supply of planners, India must produce at least 8,000 planners every year for the next 20 years. This means that the existing student intake of 600 must be increased to 8,000 students. The authors suggest the following to address this dual challenge—increasing capacity and turnover of

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planners, updating of curricula to reflect skills required, addressing urban management within planning education and recognition of demand of planners in the public, private, and third sector.

Keywords Urbanization · Informality · Equity · Climate change · Planning institutions · Smart cities

3.1 Challenge of Planning in India

"The growth of India shall be written on the canvas of planned urban development" is the vision statement on the web site of Ministry of Urban Development, Government of India. The recent central government budget and policies of the new central government reiterate planned and well-serviced urbanization as the chosen path to rapid economic development of India. Infrastructure, technology, and smart urban development have been put high on the agenda of growth. At the same time, central budget aims to tackle the issues of housing and housing finance for economically weaker groups in urban areas, all legitimate priorities. But the key question to be raised is whether the country has the kind of planners who can envisage and facilitate smart urban growth encompassing both the need for modernization and the removal of abject urban poverty that is evident in our cities.

Failure of urban planning in India is an often repeated subject of discussion in board rooms and living rooms and tables alike. The everyday experience of overcrowded, chaotic, and polluted cities with failing infrastructure and hardly accessible governance institutions makes urban planners a ready scapegoat for blame. Global academia and scholarly research has further confirmed this environment of hopelessness. As discussed by Roy (2009), the key shortcoming of urban planning in India is its lack of 'future proofing' caused by an ingrained practice of deregulation and exceptionalism, favoring the few. The solution then lies in better "future-proofing" or making plans that adhere to real projections of growth and with an equitable and fair planning for all. Future proofing in this context means plans that reflect assessed needs of the future in a realistic and credible manner, while being adequate in facing the challenges of the present. Indeed, a tall order for planners considering the challenges they face.

3.1.1 The Challenge of Large Numbers

According to the Census of India conducted in 2011b, over 65 million urban dwellers live in slums or substandard housing not fit for human habitation. Which means every one in five urban residents is deprived of basic infrastructure and a decent standard of living. Census of 2011a also reports that for the first time since independence, population growth rate of urban areas in India has been higher than

in rural areas—32 % (377 million people) of India now lives in urban centers and the number is growing at a decadal growth rate of 31–32 % since 1991. The slum population on the other hand had a decadal growth rate of 37 % since 2001. McKinsey Report on urbanization in India (2010) predicted that 40 % of India's population will live in cities by 2030. Global trends of urban population show that although Sub-Saharan Africa has the most rapid rate of growth of slum population, the absolute number of people already living in slums is the highest in South Asia (UNCHS 2003).

A recent report on Indian Urban Infrastructure and Services (HPEC Report, 2011) finds that there is a backlog of 50–80 % in investment on urban infrastructure in most cities in India. The estimated investment required in urban infrastructure including roads, transport, redevelopment and renewal in slums, water supply, sewerage, storm water drains, traffic support, solid waste management, street lighting, and capacity building is to the tune of Rs. 39.2 lakh crores in the period 2012–2031. This accounts for increasing the spending on urban infrastructure from 0.7 % in 2011–2012 to 1.1 % by 2031–2032. The report goes on to say that the backlog of investment is not only in terms of physical infrastructure but also for meeting the need for upgrading governance and service delivery in urban areas. The modernization of cities and other urban centers and investment in labor-intensive industry is suggested as the necessary platform for national economic development in the coming years.

3.1.2 Challenge of Informality and Inequity

The Indian economy, not least the urban Indian economy, is predominantly informal economy. Definitional differences aside, the now dissolved National Commission for Enterprises in the Unorganized Sector (NCEUS) estimated in 2009 that 86 % of the employment in the nation was in the unorganized and informal sector in 2004–2005. The leading sectors in terms of gross value added as well as percentage of employment were agriculture, trade, hotels and restaurants, transport and storage, construction, real estate, and personal services. With the exception of agriculture, all other sectors are predominantly urban. With such a large share of urban employment in the informal and unorganized sectors, most urban development takes place outside the domains of formal and planned city. Informal land markets, construction, and unregulated spatial developments are the order of the day. The divisions between the formal and the informal are further characterized by income inequalities and lack of entitlements that come with formal employment. The UN Habitat reports that urban inequality in India rose from 34 to 38 % (Gini Index based on consumption) in the period 1995–2005 (UN Habitat 2010).

3.1.3 Global Challenges of Climate Change and Disasters

Inequality and poverty make urban Indians even more vulnerable to the risks posed by the increasing occurrence of man-made and natural disasters. A World Bank report on Cities and Climate Change estimated that India has the second highest population (30 million) living in low elevation and coastal zones (LECZ) that will be at risk as sea levels rise due to climate change (World Bank 2010). The highest population at risk is in China with almost 80 million people living in LECZ. The situation in South Asia is considered to be far more critical because of the low level of resilience and adaptive capacity to face climate hazards and disasters. The two largest urban agglomerations of Mumbai and Kolkata have been identified as the riskiest in the LECZ and Delhi outside the LECZ due to increased temperature and aridity. Other than extreme climate conditions caused by climate change, it is estimated that 70 % of India's population is at risk to floods and 60 % susceptible to earthquake, making it the most disaster-prone country in the world (UNDP 2014). The risk levels are higher in urban areas owing to density and overcrowding.

3.1.4 Institutional Challenges and the Legacy of Physical Planning

Three recent significant reports on the status and expected growth of cities in India viz. McKinsey Global Institute's: India's Urban Awakening 2010, HPEC's: Report on Indian Urban Infrastructure and Services 2011, and Ministry of Urban Development's: National Mission on Sustainable Habitat Report, 2010, concur on the key institutional challenges before urban planners in India. These are identified as the need to mobilize financial resources for the cash-strapped local bodies, need to empower and build capacity of urban local bodies (ULB), need for reconfiguring the multiplicity of agencies involved in urban planning and governance, integration, and coordination among the various types of plans being prepared by these multiple agencies and a focus on capacity building and service delivery as much as physical infrastructure. All three reports conclude that urban planning in India is plagued with fragmentation, centralization, and an outdated focus on land use planning. Fragmentation starts with the separation of ministries dealing with urban development, housing and poverty alleviation. Despite the intentions of the 74th Constitutional Amendment 1992, the function of making plans has still not been decentralized to ULBs, making planning a technical exercise conducted by state's planning authorities and departments. Integration of the siloed and mainly physical master plans with other infrastructure plans especially transport is almost seldom. Implementing agencies of the state concerned have little or no impact on land use plans being made. Social development goals such as housing for the poor, health, education, etc. are planned by the respective departments, not coordinated within master plans. Government's initiatives through programs such as the Jawaharlal

Nehru National Urban Renewal Mission (JNNURM) is a step in the right direction but still a long way to go for achieving decentralized and integrated planning by ULBs.

3.1.5 Role of Smart Cities in India

Government of India has a vision of developing 100 smart cities as satellite towns of larger cities and by modernizing existing mid-sized cities. The budget for 2014–2015 provided Rs. 70,600 million (US$1,160 million) for this program. Overall goals for urban development in India are sustainable, inclusive, and smart cities. India requires to improve urban infrastructure and governance to achieve economic development goals and provide jobs for the youth. There is no universally acceptable definition of the smart city. The British Standards Institute defines it as "the effective integration of physical, digital and human systems in the built environment to deliver sustainable, prosperous and inclusive future of its citizens" (MOUD 2014). Boyd Cohen has done extensive research on smart cities around the world (Cohen 2014). According to him smart cities are not places that make better use of information and communication technology (ICT). This is "broad, integrated approach to improving quality of life for its citizens and growing local economy." As per government's draft concept note, smart cities should be competitive, sustainable, and have high quality of life (MOUD 2014). The whole concept of smart city should help cities to reduce consumption modes that are nonsustainable. Indian cities are still being planned where there is segregated land uses and are not integrated to transport systems. It has to have mixed land uses. Public transport systems like metro, rapid transport, bus, etc. should be linked to land use planning. Moreover, there should be higher floor space index and density. The smart city concept should embrace new centers as well as the existing cities through retrofitting. If an existing city could be connected with information and communication technology, it is likely to be a reform-linked investment program with GIS, GPS, planning, cloud computing, mobile phone, computerized data center, etc.

3.2 Planning for Sustainable, Inclusive, and Smart Cities

As the new Indian government envisions a smart urban future for India, it is perhaps the right juncture in time to reflect on the challenges we start with and the capacity needed for future proofing our cities. It is important to here that a smart city model for India cannot be limited to the high-tech *avatar* being implemented in Europe and South East Asia. A smart urban future for India would have to be technologically advanced, socially inclusive, and economically diverse. The State of the World's Cities Report of the UN Habitat (2012) presents a complex vision of urban prosperity—one which encompasses infrastructure, productivity, quality of life,

environmental sustainability, equity and social inclusion. Planners in India would have to design a far more robust and sustainable urban future if they acknowledge first complexities of the urban realities and embrace a multifaceted and comprehensive vision of urbanity for the future.

3.2.1 Generalists Versus Specialists

The key question is what kind of planners do we need for such a complex task and what kind of plans should be made? While the latter is an important question, we concentrate on the first issue in this chapter. Planning education in India, which has its origins in the British and American town and country planning education, has always struggled with the conundrum of the generalist versus the specialist. After independence, when the first town planning acts were enacted, the role of planners was confined to state- and city-level planning authorities for the preparation of primarily land use plans called master plans at city-level and zonal plans at subcity level. The planner was seen as a technocrat who would be trained in the preparation of these plans with an ability to understand and incorporate inputs from various stakeholders and from implementing agencies. We define this role as that of a 'generalist land use planner'. Until liberalization of the economy in 1990s, the function of urban planning was mainly in the domain of state agencies. However, withdrawal or reallocation of public functions especially from sectors such as housing and land development after liberalization opened up the field for a wide and diverse range of actors. Private property developers, public–private partnerships, international real estate players, professional consultancies, single window industrial development agencies, private service and infrastructure providers and civil society actors such as NGOs and INGOs are just some of the stakeholders in urban development—all of which work with and employ planners. While all these stakeholders contingently influence the course of urban development, public planning agencies still make 10–15 year city master plans. This form of land use planning has long been abandoned in most parts of the world and liberalized nations such as the U.K. and Netherlands have completely abandoned such practice. Instead, strategic and multisectoral plans are made that guide physical development and physical planning is done by private landowners and developers under ULB umbrella pertaining to specific projects. The only city-level planning that takes place is integrated land use and infrastructure planning that determines land use and urban structure at a large scale. The planner in such a multisectoral and interdisciplinary system takes on varied roles from the "strategic planner" to the "technical professional planner," "project planner" to the "urban manager," and the "advocacy planner" who is required to represent the interests of the weakest in society.

While there is a need to restructure the way planning is done, who makes the plans, what kind of plans are made and how they are implemented and monitored, it

is very essential to think and act about the right mix of generalist and specialist planners that can take on their roles and use professional knowledge to work in the complex terrain of contemporary urban development.

3.2.2 State, Market, and Civil Society Planners

The 74th Constitutional Amendment Act, 1992 (CAA) aims at decentralizing the function of urban planning from the state to the lowest level of ULBs also known as the third tier. The 74th CAA only recommended decentralization of functions listed in the 12th Schedule of the Constitution—of which urban planning is one. As a result the CAA has only been partially implemented by state governments and almost no financial devolution has taken place. The JNNURM and other programs for capacity building of ULBs have been a step in the right direction, but a majority of ULBs still lack human resources for undertaking planning on the requisite scale. Public, private partnerships have been explored as an option for boosting capacity of ULBs deficient of resources with no real financial devolution makes it unviable for market actors. As recommended by the three key reports mentioned earlier, there is an immediate need for restructuring the institutional structure for planning and bringing the responsibility of planning down to the lowest level of elected government. According to the Census of India 2011, there are nearly 8,000 cities, 626 districts, and 600,000 villages. If the 73rd CAA (dealing with decentralization of functions to *village panchayats*) and provisions the 74th CAA are implemented in their entirety, then planners would be needed at each ULB in addition to the higher tiers of government. At present, even state planning departments and national planning institutions suffer from lack of qualified planning professionals. According to the Institute of Town Planners of India (ITPI), an institution that accredits professional planners in India, the country has over 4,000 members. It is estimated that the total number of planners may be about 5,000. Using the latter figure there are only 1.32 planners per 100,000 urban dwellers. This low figure is comparable to the poorest countries in Africa such as Uganda, Mali, and Tanzania. Developed countries such as the United Kingdom have 37.63 planners for every 100,000 population (UN Habitat 2013). As is evident, there is a huge shortfall of planners in the nation at various levels of the state institutional structure. It should also be emphasized that there is a different level of skills required for planners at different levels of ULBs. For example, planners in the large metropolitan planning committees would have to handle far more complex tasks than municipal corporations in small and medium towns. There is a need to educate planners to serve at all these levels with qualifications ranging from postgraduate and undergraduate university degrees to vocational training. This is a point to which we come back later in this chapter.

Another key aspect for efficient running of cities is that of implementation and monitoring of development plans. This aspect of management has been highlighted by the HPEC Report which calls for training of urban management specialists

through the setting up of four national level schools of urban management. The key role of urbanization managers would be to focus on the coordination and collaboration between service delivery agencies, private infrastructure providers, and civil society organizations. The role of urban managers would become even more crucial in the smart cities envisaged with a high level of technological advancement to be integrated physically and institutionally in the existing cities.

However, planners are not just employed in public institutions; on the contrary, the most attractive working environments have been found in the private sector. With public–private partnerships and the active involvement of private players in urban planning and development, especially in real estate and infrastructure, planning professionals have become invaluable to the market and public sector alike. Some of the key skills in demand are those within the area of real estate planning and development, infrastructure planning, project planning and management, and various forms of consultancy and research. With an ever-increasing demand from the private sector, cash-constrained ULBs would have a tough job competing for scarce human resources in this field. This has two implications—one in terms of the number of planners that need to be trained but more importantly the kind of skills imbibed by planners. There is an immediate need to see the professional role of planners beyond the traditional one of land use and physical planning. The focus on integrated land use and infrastructure planning, capability of working with a project based approach as opposed to the long term and large scale planning, knowledge and skills for interorganizational coordination as well as awareness of financial and management aspects of plan implementation are critical for planners, irrespective of their chosen sector of employment. An emerging area of priority for public planning and an investment opportunity for the market is that of affordable housing. As highlighted by the MGI report, this is likely to require both professional and financial resources, if the large housing gap in the country has to be bridged.

In an emerging economy with large inequalities and limited resources, the role of civil society organizations is crucial. Civil society organizations have existed historically in India in the form of religious institutions, trusts, foundations, etc. Since economic liberalization, the country has seen a professionalization of such institutions and the direct engagement of multi and bilateral agencies and INGOs in partnership with such interest-based institutions. The third sector as it is called fills a gap in the delivery of services to those outside the formal networks of governance as well as representatives of the interests of the marginalized in these formal networks. More recently, we have also seen the emergence of elite civil society, which has vocally held public institutions accountable for their actions and priorities. The Right to Information Act and the Public Interest Litigations are two instruments that have been used extensively by civil society organizations for the protection of interests of specific groups as well as the demand for transparency from the state. Planners working in such organizations function as ‘advocacy planners’—taking moral and value-based positions in society and upholding the rights and interests of those that are marginalized and disenfranchized by formal institutions. In such contexts, skills needed to include participatory methods for working communities,

knowledge of basic social and physical infrastructure, livelihood issues, affordable housing and legal knowhow related to land, housing, etc. Planning education has traditionally been the weakest in equipping advocacy and civil society planners. However, given the scale of informality and inequality in our cities, inclusive planning with active involvement of both the market and civil society will be essential for a sustainable and smart urban future.

3.3 Status of Planning Education in India

Town planning education in India started in the mid-1950s. This was master's course mainly meant for architects, engineers, and postgraduates in geography, economics, and sociology. Bachelor of Planning course was initiated about 25 years ago. At present, 18 institutions offer Master of Planning and another 8 institutions offer Bachelor of Planning courses—200 Bachelor of Planning seats and 500 seats for Master of Planning are available at these 18 institutions. Specializations are offered in Master of Planning level such as urban and regional planning, transport, housing, infrastructure, and environmental planning. At present, India has 5,000 planners and it needs 160,000 planners by 2031 (Committee of Experts in Town Planning and Architecture for Policy on Education, 2011). Thus, on an average, India needs to produce 8,000 planners every year over the next 20 years.

The Institute of Town Planners, India has prepared model curriculum for Bachelor of Planning and Masters level degree programs in planning. Table 3.1 illustrates the recommended content:

Bachelor of Planning is a 4-year program that covers an impressive range of 40 interdisciplinary subjects that are intended to educate planners who can function in diverse circumstances or environments. Yet, the practical component of the program is still geared toward mainly physical planning, training students to prepare land use plans at various geographical scales—site plans, zonal plans, master plans, etc. The specialized Masters or M.Tech curriculum takes graduates from various disciplines and offers a 2-year specialization in a chosen field of planning. The two examples illustrated here—urban planning and infrastructure planning and management cover a similar multidisciplinary area in planning education as the Bachelor program albeit with a focus on a specialized field. As compared to these programs, European and American programs on planning normally have 3–4 core subjects per semester with larger and more focused individual courses. The merits of the above curriculum design are its comprehensiveness but it poses limitations on the quality of achieved learning.

Another aspect worth highlighting is the theory—skill balance in these programs. Although both the Bachelor and Master programs are designed with a problem-based learning approach and learning by doing by working with real-life projects as studio exercises, the core teaching is mainly oriented toward theoretical knowledge of a wide range of cognate subjects. There is need to revisit the skills dimension of planning education, especially with the large anticipated demand of

Table 3.1 Subjects in the syllabus of undergraduate and postgraduate planning programs

Bachelor of planning	Master of planning
First year: first semester Fundamentals of urban and regional planning Fundamentals of building structures Materials and principles of construction Statistical and quantitative methods in planning—I Technical report writing and research methodology Basic architectural design Planning and design lab—I (graphics and presentation techniques)	**Specialization in Urban Planning** **First year: integrated first semester** **Core subjects** Planning history and theory Socio-economic basis for planning Planning techniques Infrastructure and transport planning Housing and environmental planning Studio course
First year: second semester Elements of economics Surveying and photogrammetry Specifications, estimation and valuation Statistical and quantitative methods in planning—II Evolution of esthetics, culture and technology Techniques of planning—I Applied geology and hydrology Planning and design lab—II (graphics and presentation techniques)	**First year: second semester** **Core subjects** City and metropolitan planning Infrastructure planning Urban heritage conservation Advanced planning techniques Studio course **Elective subjects** (select any one) Inclusive urban planning Planning for tourism
Second year: third semester Planning theory—I Settlement geography Techniques of planning—II Computer aided design (CAD) in planning Demography and urbanization Traffic and transportation planning—I Planning and design lab—III (neighborhoods and site planning)	**Second year: third semester** **Core subjects** Urban development management Project planning and management Urban governance Politics and planning Studio **Elective subjects** (select any one) Environment, development and disaster management Energy, climate change and urban development
Second year: fourth semester Planning theory—II Planning practice—I Traffic and transportation planning—II Ecology, environment and resource development and management Housing and community planning Settlement sociology Planning and design lab—IV (transportation planning)	**Second year: fourth semester** **core subjects** Development finance Legal issues and professional practice thesis

(continued)

Table 3.1 (continued)

Bachelor of planning	Master of planning
Third year: fifth semester Real estate planning and management Planning and management of utilities and services Planning legislation Landscape planning and design Geo-informatics for planning Sustainable urban development Planning and design lab—V (area planning) Training seminar—I	**Specialization in infrastructure planning and management** **First year: integrated first semester** **core subjects** Planning history and theory Socio-economic basis for planning planning techniques Infrastructure and transport planning Housing and environmental planning Studio course
Third year: sixth semester Urban management—I Urban renewal and conservation Project formulation, appraisal and management Introduction to urban design Planning and management of informal sector GIS for planning Planning and design lab—VI (urban development plan)	**First year: second semester** **core subjects** Project formulation, appraisal, monitoring and evaluation Transport networks and terminals Infrastructure pricing and financing Infrastructure development policies Information systems for infrastructure planning Studio
Fourth year: seventh semester Introduction to regional planning Urban governance Urban finance Disaster risk mitigation and management Electives: Infrastructure planning, development and management Rural development and management Metropolitan planning, development and management Planning and design lab—VII (regional planning) Training seminar—II	**Second year: third semester** **core subjects** Infrastructure for regional development Telecommunications and information Technology Regional development policies Infrastructure management Planning for special areas and mega Projects Studio
Fourth year: eighth semester Urban management—II Planning practice—II Human values in planning Electives: Environmental impact assessment PPP in urban environmental services Planning thesis	**Second year: fourth semester** **core subjects** Infrastructure management Research methods and quantitative Techniques Thesis

Source Model Curriculum, ITPI Website http://itpi.org.in/content/default.aspx

public planners that will be dealing with practical planning tasks within ULBs. It can also be asked if university-level education in planning is the only way of increasing the human resources in the planning profession. Vocational education and continuing education programs for professionals already working in planning

institutions could be a more efficient mode to increase capacity with a view to tweaking manpower availability. In Norway, for example, planning education is offered both at university level but also in what are called "tertiary vocational schools" which are the equivalent of the technical polytechnics in India.

3.4 Way Forward

In conclusion, we identify the following key issues that should guide planning education in India:

- More urban planners—The numbers of planners being produced in our education institutions has to be increased to meet the increasing need and demand. These educational institutions may be public or private but strict quality control of education is necessary.
- Planners for the state, market and civil society—There is a need for recognition of the three sectors and the variation in the roles of planners employed therein. Planning education needs to be diversified accordingly.
- Educate planners at all levels of ULBs—Decentralization of functions of planning according to the 74th CAA is inevitable and planning education will have to respond by training planners for a varied level of skills required within the three tier system.
- Balance generalist and specialist planners—Planning education and curriculums would have to reevaluate the mix of knowledge being imparted to train both generalist and specialist planners. The issue for discussion is the theoretical versus skill based training.
- More urban managers—with the importance of infrastructure and the multiplicity of actors involved in urban development, the management aspect of planning is essential for efficient and effective urban governance. Specialized urban managers need to be educated to take on these roles.
- Information Communication and Technology (ICT) in planning education: The planning courses in India should provide more courses and knowledge on ICT through planning education.
- Planners have to enlarge their concerns from physical to integrated planning—land use, infrastructure, environmental sustainability, social inclusion, risk reduction, economic productivity, and financial diversity are only some of the aspects that need to be integrated for realistic and future proof urban planning. Planning education should take the lead in modifying practices in the profession, thereby facilitating long term institutional changes.

The profession of planning is entrusted with identifying and upholding the common good of society. While the academic community debates extensively on what this common good entails in these post-liberal times, the value laden and moral responsibility of planning is undeniable. In the coming years, planning

education in India has the responsibility to train professionals that carry with them the ethos of the common good and can enable the realization of a smart urban future for all rather than smart cities for a few.

References

Census of India. (2011a). *Rural urban distribution of population, provisional population totals, 2011*. New Delhi: Government of India.

Census of India. (2011b). *Housing stock, amenities and assets in slums, 2011*. New Delhi: Government of India.

Cohen, B. (2014). *What exactly is smart city*? www.Fastcoexit.com

HPEC. (2011). *Report on Indian Urban Infrastructure and Services, High Powered Expert Committee for Estimating the Investment requirements for Urban Infrastructure Services*. Ministry of Urban Development, GOI.

McKinsey Global Institute. (2010). *India's urban awakening: Building inclusive cities, sustaining economic growth*. India: Mc Kinsey and Company.

MOUD. (2014). *Draft Concept Note on Smart Cities*, National Conclave of Ministries and Principal Secretaries of States and Union Territories, Ministry of Urban Development, Government of India, 12 September 2014. www.indiansmartcities.in MOUD.

Roy, A. (2009). Why India cannot plan its cities: informality, insurgence and the idiom of urbanization. *Planning Theory, 8*(1), 76–87.

U.N. Habitat. (2010). *State of the World's cities report: cities for all: bridging the urban divide state of the world's cities*. Nairobi: UN Habitat.

UNCHS. (2003). *Global report on human settlements: the challenge of slums*. Nairobi: UN Habitat.

UNDP. (2014). *Disaster Risk Reduction*. UNDP India. Retrieved from August 8, 2014 from http://www.in.undp.org/content/india/en/home/ourwork/crisispreventionandrecovery/overview.html

World Bank. (2010). *Cities and Climate Change: An urgent agenda*. Urban Development Series, Knowledge Papers, Washington DC.

Chapter 4
History of Indian Human Settlements—Lessons for Planning Education

N. Sridharan

Abstract In India, the pedagogy of planning education usually starts with Mohenja-daro–Harappa period and shifts to the colonial history of urbanization and city planning, skipping an important historical time period of Indian civilization that placed the subcontinent at the global stage. Many of India's past cities were globally networked with the Roman, Persian, and other emerging global cultures of that time. Deccan Kingdoms that ruled little more than four centuries influenced the art, architecture, and city development processes that attracted traders from across the globe who became colonial masters over a period of time. Techniques used in the production systems that existed in urban centers, especially pertaining to textile, spices, and high-quality silk, got transmitted world over generating more demand for these commodities, consequently perpetuating spatial spread of these urban centers. This chapter analyzes some of the elements of ancient, medieval, and colonial urbanization in the Indian context that are necessary to understand urbanization in today's India. I have divided the analysis into three periods: pre-Buddhist, post-Buddhist, and colonial period for discussing urbanization and its spatial manifestations using archaeological evidence. This chapter starts with the great Indian controversy of movement of the Aryans from North to South and ends up with the urban centers and urbanization in Tamil Nadu showcasing the economic, religious, and other aspects. At each point of history, the chapter makes a connection with planning education and points out how the existing planning theory or settlement analyses can be taught differently.

Keywords Deccan · Historic urbanization · Mughals · Colonialism · Spatial priority urban regions

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4.1 Introduction

Indian urban history, though less documented, reveals the number of urban centers that came up from Mohenja-daro–Harappa period in the Western side of the sub-continent, to more than 36 urban centers just during the Satavahana period in Andhra alone. The dynasties that ruled Deccan that covered east-west of the country were much more influential in terms of creating urban centers, especially knowledge centers for learning and living, than the ancient kingdoms of Mauryas, Kushanas, and others. The Mughals no doubt created capitals such as Shajahanabad, Agra, etc., which were more or less followed administrative dominance similar to the British. In the post-independence period, after almost three decades of India's independence, the National Commission on Urbanization (NCU) that came out with a report (1988) foretold the importance of urban agglomerations and called them as Generators of Employment Momentum (GEM) and Spatial Priority Urban Regions (SPURS). However, NCUs recommendations were kept in cold storage and urban policy was reinitiated through urban projects and programmes such as JNNURM and now through smart cities, AMRUT and HRIDAY. Urban Policy continues to suffer from discontinuities in Indian scene. As a result, there is a clear east-west divide in regard to urbanization, with heavy concentration of urbanized states in the western part of India thanks to their early industrialization and urbanization. Eastern parts of India, though started earlier through forceful industrial location policy in 1956, seldom had its desired spread effect. Starting from 1990s, a new urban reality is emerging in the country such as urbanization along the road corridors.

Similarly, analysis shows that agro-climatic zones play an important role in the process of urbanization due to heavy dependency on agriculture in various agro-ecological zones of the country. Small towns with 5,000 plus population are emerging strongly in the eastern and western Himalayan region and the eastern hill region due to the development of industrial and road corridors. Future urbanization in the country depends on how smart are we in polarizing the existing scenario profitability to minimize the cost of urbanization and to disseminate employment generation to lower order settlements in achieving a balance in the urbanization process. This chapter analyzes these aspects by emphasizing historical data on urbanization along with agro-climatic zones and corridors. It comes out with conclusions and recommendations to achieve a balance in urbanization process without fuelling further spatial inequality.

4.2 Pre- and Protohistoric Urbanization

Dividing urbanization in India into three phases, Smith (2006) establishes through cultural cohesion, archaeological evidences and artifacts of social, ritual, and economic activity, distinctive periods of urbanization, namely, the Indus Valley (2500–1900 BC); Early Historic Period (third century BC to fourth century AD)—when

cities are tied to their administrative or political boundedness; and third the medieval period (after the nineth century AD) when urban growth occurred in sync with the political dominance of a particular place (Smith 2006, p. 97).

The period of prehistory can be associated with Mohenjo-daro, Harappa, and Kalibangan. The prehistoric period is divided into the Paleolithic (Old Stone Age), Mesolithic (Middle Stone Age), Neolithic (New Stone Age), and the Metal Age (see http://holisticthought.com/india-during-pre-historic-period/ accessed on 15 December 2015). There are archaeological evidences to prove that the prehistoric period existed not only in Mohenjo–daro and Harappa, (North West of India) but in Kalibangan, Rubai, (North India) Sisupalgarhi (East India–current Orissa), Maski, Anandpur, Prahmagari (Karnataka and Andhra), Pallavaram and Adichanallur (Tamil Nadu). Paleolithic people lived in rock cuts, near water sources, and were skilled in wall etchings as evidenced from Bhimbetaka in Madhya Pradesh and Kurnool in Andhra Pradesh. Usually, planning history currently taught planning schools stops at Mohenja–daro and Harappa that were well defined in terms of town planning aspects without moving further to other sites that were not as skillfully developed as Mohenja-daro and Harappa. But these sites depict several aspects of India's early history of urban settlements.

Mohenja-daro and Harappan Civilization famously known as "Indus Valley Civilization" from where the word "Hindu" originated was an advanced civilization in terms of "town planning and high standards of civic life" (Singh and Srivastava 2015). The Indus Valley Civilization as mentioned earlier followed a grid system of town planning with roads crossing north-south and east-west at right angles. However, recent excavations revealed that the Indus Valley Civilization had not necessarily followed only grid system but followed other patterns with meticulous mathematical precision that governed urban design of their cities. It also had well laid out drainage systems, both covered and uncovered made out of burnt and unburnt bricks, and stones. The size of urban settlement was not a dictating factor in the planning of these settlements. For example, as revealed by Singh and Srivastava (2015, p. 74), Lothal had more advanced planning than Kalibangan and other places such as Banaswali or Surkottada. Indus Valley Civilization followed a "Twin Mound System" of settlements in which the citadel was occupied by the rich and powerful people within the community, which are mostly nonresidential such as great bath, granary, assembly hall, etc. (Singh and Srivastava 2015, p. 74). Lower parts of a town were occupied by commoners and had residential buildings. Lower town had streets, lanes and by-lanes, and was surrounded by a fortified wall having gates along with the citadel. This occurred in all the Mohenja-daro and Harappan urban settlements.

Unique feature of the Indus Valley Civilization has been its meticulous planning of drainage systems. The rainwater harvesting system had been kept separate from that of sewerage system. The water management system that was followed during the Indus Valley Civilization was something unique. Public wells placed for every three houses with 15–16 m deep, while private wells also existed in each house (Singh and Srivastava 2015, p. 74). Water drained from houses went to peri-urban fields meant for agriculture. Indus Valley Civilization constructed dams to harness

water even on streams such as Manhar and Mandsar were used to channelize water. In Dholavira alone, 16 reservoirs were found during excavations which reveal the use of the advanced water management techniques prevalent in the Indus Valley Civilization.

Mesolithic or Middle Stone Age period that spanned from 10,000 BC to 6,000 BC and occurred mainly in the present day Gujarat, Rajasthan, and Madhya Pradesh with little spread over Bihar and Uttar Pradesh. Evidences of settlements unearthed in Linghanj in Gujarat, Andamgarth in Madhya Pradesh, and other places in Rajasthan, Bihar, and Uttar Pradesh show that Mesolithic Civilization was the first to settle down in a settlement for a longer period and started agriculture, horticulture, and domestication of animals.

These practices were continued in Neolithic Age (prehistoric period in India) that dates back to 6,000–4,000 BC. Chirand in Bihar, Belan Valley in Uttar Pradesh, and several places such as Hallur and Kodekal in Karnataka, Maski and Brahmagiri in Maharashtra, Utnur in Andhra, and Paaiyampalli in Tamil Nadu showed evidences that the Neolithic society practiced agriculture, used sharp tools for hunting and gathering food, and for the first time manufactured pottery. Transport—mainly animal drawn transport—was used for cultivation and for commodity transportation for the first time in India during this period.

During the metal age (prehistoric), which is also called chalcolithic culture, the settlements occurred mainly in river valleys such as Krishna, Godavari, Tungabhadra, Pennar, and Kaveri. Farming was widely practiced with rice as the dominant crop, which continues even to this date in these valleys. Later part of metallic age saw the emergence of iron in various forms. Nagarjunakonda in Andhra Pradesh, Hallur and Maski in Karnataka and Adichanallur in Tamil Nadu, where Mesolithic and Chalcolithic settlements have been found and these settlements show evidence of red and black pottery, and iron artifacts used as small weapons.

One of the Internet sources (www.mapsofindia.com/history/ accessed on 20 December 2015) reveals the existence of 16 Republics or Mahajanapadas during the Vedic Period, which is given as 1500–500 BC. This source also gives an explanation of the Persian routes from North West India through which Alexander the Great came to India. It states how Alexander the Great conquered the Achaemenid Empire and reached the Indian subcontinent to conquer most of the Punjab, which was well developed at that time.

However, between 400 BC and 1300 AD, the spread of Jainism and Buddhism started. While Jainism restricted itself to smaller settlements and on the hill tops, where there is a source of water, Buddhism occurred all along the river valleys and near other human habitats so as to have a human interaction frequently. No other religion influenced urbanization as that of Buddhism in Asia. During the time of Buddha and later during the time of Ashoka (Mauryan Dynasty), Buddhism became the main religion and was preached through monasteries that were established in the style of a university with a minimum of 5,000–10,000 students as in the case of Nalanda in the present day Bihar. Monasteries were small townships that the Buddhists established throughout India and elsewhere wherever they went.

All these archaeological and historical evidences show the existence of urban settlements and advanced system of planning of urban and peri-urban settlements in India in the past. Mauryan Empire that began in 322 BC came out with a series of strong administrative capitals with a well-planned and fortified super capital at Pataliputra. During the Mauryan period in the northern part of India, in the southern parts of India, Tamil Nadu had an advanced urbanization process that evolved under various kingdoms as we shall see below.

The ancient period can be ascertained from the period post-Buddha; from that of Mauryas, Satavahanas, Ikshavahus, and other smaller kingdoms of Deccan and the larger kingdoms of Chera, Chola, and Pandyas in the south east of India. These southeast Indian kingdoms also had their competitor Pallavas who had a strong influence on other kingdoms. We try to analyze each of these dynasties and analyze their contributions.

Chakrabarti (2005, 2010) quoting Moti Chandra's (1977) work on the "Grand Route" that covered north India with Central and West Asia and China states that settlements did develop along the trade routes. Chandra (1977) referring to Arthashastra of Kautilya mentions another route between Ganga Plains to Deccan, called "Dakshinapatha." Historians, archaeologists and the city and regional planners in India researched less on Dakshinapatha. Dakshinapatha region that covered area immediately below Ganges till Krishna River in the south had several kingdoms that ruled for many centuries. Dakshinapatha had strong links with the outside world such as Persians, Romans, and the Greeks through trade links and many cities with advanced technologies existed in this region. I will try to follow Chakrabarti (2010) and analyze urban settlements that occurred during this period that followed Mauryan Empire.

Sage Bavari whose story has been described in the Suttanipata states about cities that he encountered during his travels from Sravasti in Kosala to Dakshinapatha for meditation. These cities include among others, Pratisthana, Mahishmati, Ujjayanini, Gonarda, Vidisa, Vanasavhaya, Kausambi, and Saketa (Chakrabarti 2010, p. 10). Between Vidisa and Kausambi one more historic city of Tumbavana or modern Tumain existed. Disciples of Bavari also passed through Setavya, Kapilavastu, Jusinagara, Pawa, Bhoganagara and Vaisali, which were well known at that time. Archaeological evidence shows that Dakshinapatha during the Buddha period was located between Assaka territory and near the Alaka territory, which is the current Godavari Valley. These two territories were located in the current day Andhra and Maharashtra.

Relying on J.D. Beglar's (Alexander Cunningham's assistant) work of 1878, Chakrabarti (2010) and Chakrabarti et al. (2003) charts out 13 geographical routes of the great migration in ancient India and 155 urban settlements. Chakrabarti (2006) goes on to list 12 towns in Bengal (including current Bangladesh) and 72 urban centers in middle and upper Ganga plains and Central India and Deccans. Between Benares and Chunar there existed 10 major settlements such as Audhe, Khanab, Rudauli, Kushaha, Belwa, Adaipura, Mahishasur, Jakhini, Dholapur, and Ashtabuja apart from Benares and Chunar themselves (Chakrabarti 2010, p. 37).

In Chhattisgarh basin, temple towns existed that occurred all along trade routes. These towns were Durg, Mahasamund, Arang, Sirpur, Raipur, Malhar, Seorinarayan, Ambikapur, Ramgarh, Katghora, Korba, Pali, Ratanpur, Bilaspur, Akaltara, Baikunthapur, Sonhat, and Mara (Chakrabarti 2010, p. 51). Similarly, there were 63 port towns spread across the western coast. In the undivided Andhra Pradesh that is the present day Andhra and Telengana, which is considered a major part of the Dakshinapatha, there existed several fortified cities. As stated earlier, Huang Zang's travels revealed several towns that he came across in India. Singh and Srivastava (2015) captured Huang Zang's travels in a map form and provided location of cities that he visited. She highlighted trade and knowledge centers that developed during the time of Huang Zang's travels and where they occurred in the Indian subcontinent. It is worthwhile to mention here that most of the major urban centers at that time were located in the eastern parts of India, where the post-Buddha period Buddhist congregations were held or knowledge centers were created. In fact, Tripathi (2011) gives the synchronization of the geographical occurrence of Buddhist centers and port towns (either inland or sea ports) in India in his work. Tripathi points out that these centers in Deccan, which became the cradle for Buddhist culture till fourteenth Century AD. Location of the ports and Buddhist centers in the east coast enabled the spread of Buddhism to other East Asian countries through trade links. These facts imply that Buddhist religion and culture dominated the growth of urban centers in India in the past. In other words, cities and towns were not driven by the economic factor alone as was the case in developed countries, but culture and religion played an important role in city building process.

Translation of "Periplus of the Erythrean Sea" by Schoff (1912) lists the Kings of Satavahana such as Satakarni with who trade between the Roman and Greek flourished. Satavahanas ruled from the second century BC to fourth Century AD over Deccan and shifted their capital at least twice from Srikakulam near current day Machilipatnam to Pratishtan (current day Paithan in Maharashtra) and to Amaravati (proposed capital city of new state of Andhra Pradesh). Most of these settlements occurred in the post-Buddhist period starting especially from Mauryan Empire. This aspect has been reiterated by Ray (1987) who describes two phases of urbanization in the Indian subcontinent that is Harappan urbanization, which set an example to the world in terms of town planning, and the second in Deccan during the Satavahanas. Capturing only the Western Deccan, Ray points out that the emergence of seven port towns, several other settlements that passed through and crisscrossed the Western Ghats and Vindhyas. Mabbett (1993) pointed out the lacuna in urban studies of the Deccan and south of India while analyzing the emergence of Danyakataka.

Morrison (1997) examines the economic changes in South Asia that triggered the development of markets, money, commercial production, and urbanization itself. She reveals the relation between long-distance exchange and political and economic structure and shifting roles of monasteries, temples, and guilds based on her work from 500 BC to 1600 AD (Morrison 1997). On the other hand, Heitzman (1987) points out the emergence of temple urbanism in medieval South India,

especially during the Chola Period (849–1279 AD). He went to the extent of analyzing functions of temple towns and compared them with those of central-place functions for their hinterlands, which are important to learn for modern scholars on urban studies. Reiterating the above point, Skinner (2012) pointed out those ecological, economic, and political characteristics of urban centers that emerged in northern South Asia was not followed in the Deccan valley that obtained its own regional identity, which triggered urbanization of its own.

Champakalakshmi (1996) gives a detailed picture of early historical urbanization in Tamil Nadu through her excellent work on "Trade, Ideology and Urbanization in South India." She analyzes the emergence of urban centers port towns and in detail, emergence of urban agglomerations in early Tamil Nadu. She differentiates between royal centers, *Nagaram*, craft centers, merchant centers, port towns, and coastal towns. One wonders how historical urbanization in India links strongly with current urban scenario. In other words, early states such as Maharashtra, Karnataka and Andhra (early Deccan empire) Tamil Nadu, and Kerala (early Chola, Chera and Pandiya empire), which got urbanized in the past continue to play a dominant role in the current scene as well. All these studies show that planning schools of twenty-first century India should place a special focus on the urbanization of Deccan and incorporate these studies in the current planning theory and planning pedagogy.

4.3 Medieval India

Medieval Indian urbanization history and its teaching converges on Shajahanabad, Agra, Lucknow, and Jaisalmer in the North and the temple towns of the South such as Srirangam, or the colonial towns of Pondicherry and Panaji, etc. However, many cities emerged during the medieval period in India, which are often ignored while studying historically located Indian urbanization processes. For example, Thanjavur in current day Tamil Nadu, existed as a metropolitan city during the medieval period. Stephen (2014, p. 213) mentions about the "ullalai" or inner town and "purambadi" or outer part of the town. Stephen also mentions about the transformation of Thanjavur town into a cosmopolitan metropolis through political and economic transformations. Many authors give detailed descriptions of medieval towns in India like Mandi towns in Western Rajasthan (Devra 2014); Qasbas of Mewat (Bhardwaj 2014); Srinagar (Maurya 2014); Lucknow (Trivedi 2014); Orchha (Sharma 2014); Warangal (Lakshmi 2014); Sopara, the ancient port town of Konkan, (Fernandes 1928); Mandvi and Mundra-Port towns of Kachchh in Gujarat (Saxena 2014); and studies on Diu, Daman and Goa. These are rich in terms of inner city analyses as well as urban interconnectivity. Chaudhuri (1978) brings out a study about town and country relations in depth in the Mughal India through his phenomenal work.

Similarly, travelogues and in-depth studies by the Dutch, French, and British writers who were employed in the Dutch East India Company, British, and French

governments wrote about their travels to various interior cities and towns capturing their rich trading skills and social relations. For example, Sewell's translation of Domingos Paes's work on Vijayanagar from Portuguese, Oliver Optic's work (1895) on "Across India," Modern India by William Eleroy Curtis (year not known); and Commissioner Booth Tucker (1891), Russel's "The Tribes and Castes of the Central Provinces of India" (1916), apart from Government Gazetteers such as Gordon Mackenzie's (1883) "Manual of the Krishna District," Alexander Rea's travels in Madras Presidency. All these works reveal the intricate socioeconomic and living conditions of these towns other than their own capital towns. These works show the advancement of urban development in that era and how the people coped up with the colonial rule at that time. In fact, many of the current day debates on "spatial justice" can be found in the analysis of white and black towns that were in existence during this colonial period.

One of the important aspects of the medieval and colonial urbanization is the emergence of urban–rural interactions necessitated by agricultural dependency, especially on cash crops such as cotton, and minerals like coal and iron. Propelled by trade, the medieval kings and colonial Empire depended on trade routes and created routes to hinterlands, which in a way forced urbanization process into rural areas. The medieval analysis of urbanization is restricted to a large extent due to the availability of literature on many of these medieval towns as well as focus on these towns while teaching settlement courses. Now, I move on to urbanization in the post-independence period so as to link it with the past and future that are essential for planning pedagogy.

4.4 Post-independence Urbanization: East-West Divide

As Crane (1955) points out Indian urbanization has moved away from this historicity of metropolitan growth that was based on administration, handicrafts, and trade. He further points out that since the Europeans such as the Dutch, French, British, and Portuguese came, it has been the industry that is driving urbanization as it did in the Western Europe. Since independence, urbanization has been happening in a policy vacuum. Industrial policy has been driving urbanization process in India without a proper urban policy or strategy. Programme approach has been misconceived as policy approach and strategy toward urbanization and till mid-1970s, no major urban programmes were formulated except development of capital cities of Chandigarh, Gandhinagar, Bhuvaneshwar, etc. Quoting Gyan Pandey (2002), Batra (2009) states that despite all the national leaders hailing from leading cities, urban question was conspicuously absent from imagination and policies. This may be due to the Gandhian legacy of rural self-sustenance that predominated the national movement, and post-independence Nehruvian modernization through industrialization. Here urbanization was left behind without realizing its importance as a tool of economic development. Resources were scattered to develop towns and cities in far-flung areas imagining that these towns and cities will have their "spread

and backwash effects." Based on this ideology, several new steel towns were developed in collaboration with foreign countries, which could not generate desired results of spread and backwash. They remained isolated islands of development driven by public sector companies, which were facing financial crunch leading to declining growth of these new towns.

The mid- and late-1970s saw the emergence of Mega City Development Programme assisted by the World Bank and later Integrated Development of Small and Medium Towns (IDSMT). Mega cities such as Mumbai, Kolkata, Chennai, Jaipur, etc. were covered under the programme mainly to get funding from the center. Similarly, though conceived appropriately the IDSMT programme could not generate employment to stall urban-ward migration as the sub-programmes and projects were meant for infrastructure development rather than income or employment generation for the masses. After realizing the enormity of the problem, Government of India set up the National Commission on Urbanization to work out the National Urban Policy and Strategy for future urbanization in 1985. For the first time, spatial perspective on urbanization was given priority and location of urban settlements by size and functions in regional and subregional level were deliberated. It was also felt by the Committee that delineating planning regions at national and state levels need to be taken up by various state governments. Figure 4.1 reveals the contradiction between Spatial Priority Urban Regions (SPURS) as proposed by the NCU and under the IDSMT programme that was implemented by Government of India. It shows the deviations away from the identified SPURS, which could have triggered further urbanization and employment in these backward regions, if spatially targeted investment was made. Khan (2014) after analyzing various sub-missions that include UDISMT under Jawaharlal Nehru National Urban Renewal Mission (JNNURM) states that the entire programme was metropolitan biased though much of the population lived in smaller towns and were facing severe financial and employment crunch leading to poverty.

The National Commission on Urbanisation (NCU) came out with a detailed report in 1988, which was never accepted by the Government of India. The report suggested a far-reaching strategy based on evidences and came out with 49 regions as Spatial Priority Urban Regions (SPURS), and 329 cities as Generators of Employment Momentum (GEMS) (NCU 1988). Figure 4.2 shows the highly urbanized areas and the SPURS proposed by the NCU. This reveals that the NCU that based its strategy on trend data was not wrong in predicting the future areas of urbanization in the country. In most of the current discussions and teachings on urbanization, the NCU recommendations hardly find a place, as these are not project based.

Similarly, the current trend of corridor urbanization has taken priority over urban policy initiative or strategy to urbanize backward states. As pointed out by Desmet et al. (2012), there are widening spatial disparities in India, which raise many relevant questions about the future urbanization process in India in terms of whether investments should be concentrated in metropolitan cities or in small and medium towns. It is also relevant to seek some balance between congestion costs and agglomeration economies, etc. As analyzed earlier in terms of urbanization, there is

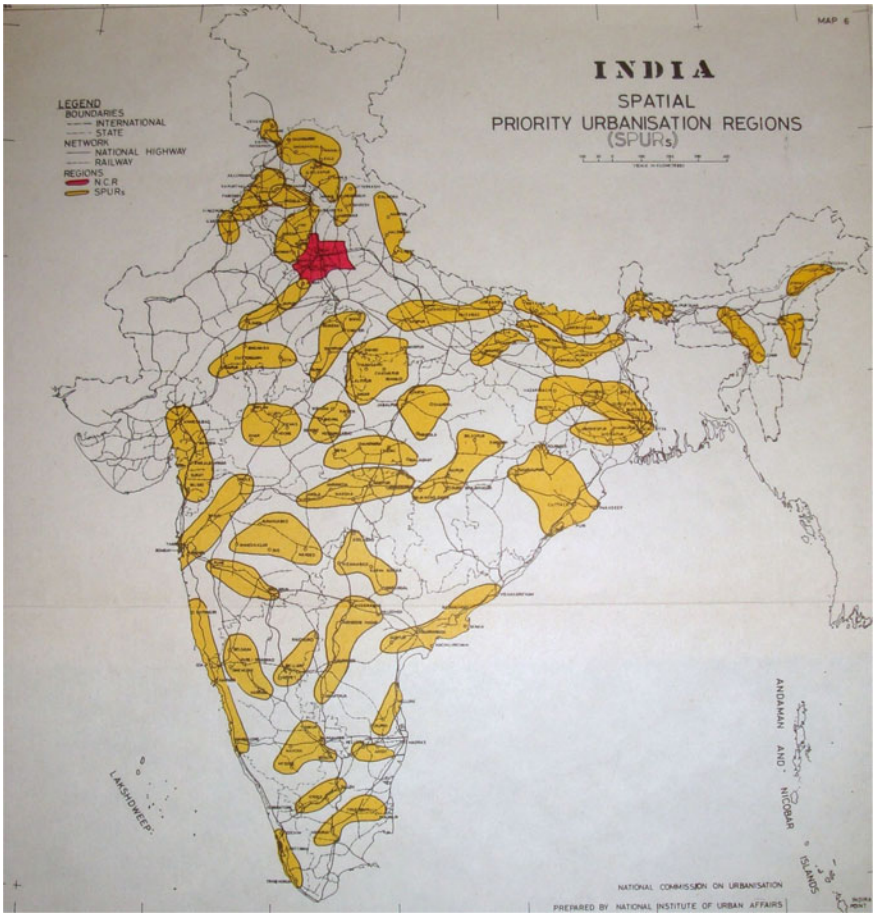

Fig. 4.1 Contradiction between spatial priority urban regions (SPURS)

an east-west divide in the urbanization process in India, where the east is left out and remains backward in terms of urbanization. The second issue is that of heavy concentration of industries in already urbanized districts of India. It will be interesting to evaluate the industrial policy in terms of how far deregulation and liberalization resulted in convergence and divergence of industries in and around metropolises. Based on the data-based research from 1980 to 1999, Fernandes and Sharma (2012) points out that delicensing and liberalization in foreign direct investment has indeed enabled spatial spread of industries, and thereby decentralized urbanization process. However, this has been contradicted by an earlier economic geography research by Cadene (2005), who pointed out the domination of Mumbai region (including Pune), Delhi Region (spread across Delhi, Haryana and Punjab), and Chennai Region (spread across Tamil Nadu and Kerala) in terms of economic command centers of India. These three regions are going to be the future

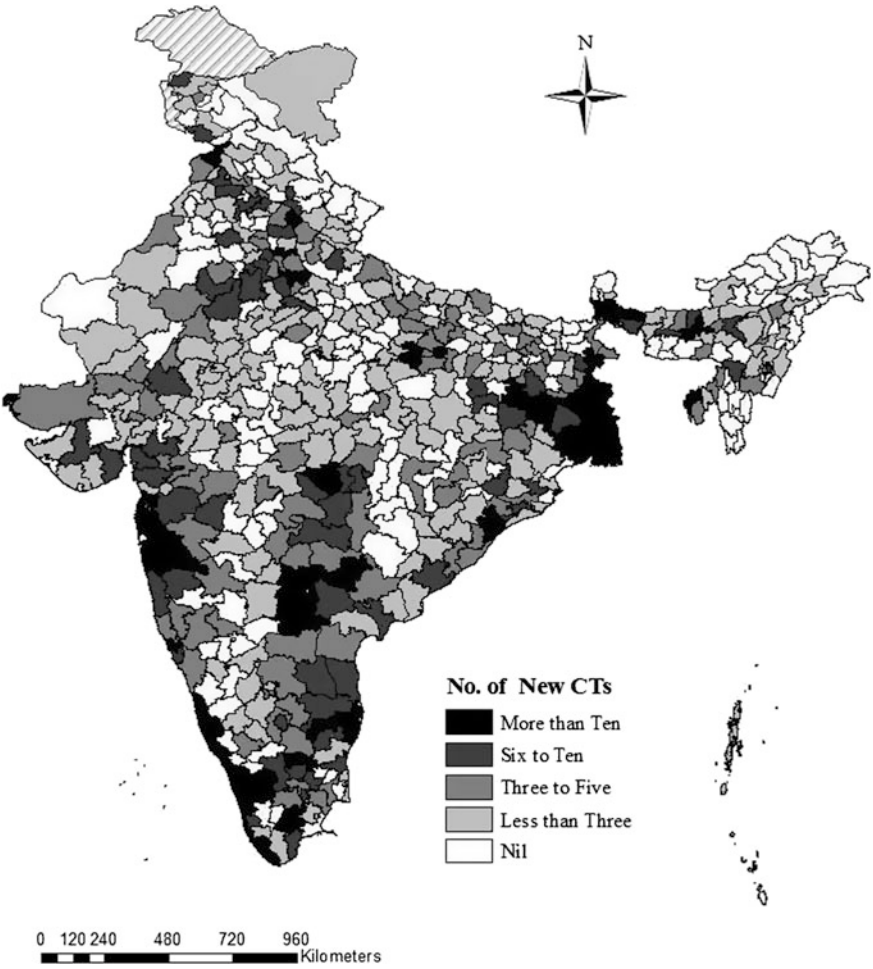

Fig. 4.2 Highly urbanized areas and the SPURS

deciding spaces in economic growth of India, concentrated urbanization, and will see an emergence of mega-urban corridor cutting across states and propelled by highway network.

Emergence of small towns especially after its identification by Census of India, 2011 raises so many issues for the planning profession. Lack of emphasis on regional planning education in the country and absence of focus on nonmetropolitan and rural areas further entrenched metropolitan bias in planning processes. As observed earlier during the pre and post-historic period, urbanization was propelled by trade routes and not just based on administrative functions alone. This triggered urbanization all over India, especially in Deccan. However, this forgotten history can be brought back to emphasize that the trade routes in the current scene resemble

corridors and investment in small and medium towns to propel better urban quality of life as well as urbanization process. It is evident from China's economic growth (McKenzie 2010) that urbanization contributed most of its GDP over the years especially after 1980s. India is yet to catch up with urbanization so as to make a dent on GDP from urbanization process. McKenzie (2015) reveals that four important aspects will drive the future of a country: age of urbanization driven by economic agglomeration, accelerating technological changes, aging population, and global connectedness through trade, people, and technologies. How we include these aspects and at what level in teaching Indian urbanization to the students is a challenge to planning educators. Inadvertently most of the scholars on urbanization start with census population figures on urbanization and end up with the same without touching crucial aspects such as technological changes, mobility, economic agglomeration, and global connectedness. These ideas need to be incorporated in the syllabus of every planning school. Emphasis should be placed on policy studies rather than programme-based research studies.

4.5 Conclusions

History has taught us that India was leading in urban planning practices but its sluggishness came about when Indian intellectuals started practicing imported models of urbanization that deviated from the traditional crafts and cultures, as well as employment-based urbanization. Bridging the policy vacuum in urban policy making is as important as that of the programme implementation. No doubt urban programmes such as JNNURM and the Smart Cities Mission may be money spinners but these programmes do not generate adequate employment opportunities so as to make an urban area sustainable. Planning pedagogy needs to consider the issues such as technological changes, economic agglomerations, mobility, and concentrate on regional planning issues that can reduce metropolitan problems in the future. It is important to work out a state-level urban strategy too while developing urban policies at national and state levels.

References

Batra, L. (2009). *A review of urbanization and urban policy in post-independent India*. Working Paper Series: CSLG/WP/12, Center for the Study of Law and Governance, Jawaharlal Nehru University, New Delhi.

Bhardwaj, S. B. (2014). Qasbas in Mewat in the medieval period: a study of the interface between the township and the countryside. In Y. Sharma & M. Pius (Eds.), *Cities in medieval India* (pp. 319–338). Delhi: Primus Books.

Boswell, J. C. (1872). On the ancient remains in the krishna district. *Indian Antiquary, 1*, 149–155.

Cadene, P. (2005). Economic geography of India. Unpublished Report, Department of Geography, University of Paris, France.

Chakrabarti, D. K. (2005). *The archaeology of the deccan routes: the ancient routes from the ganga plain to the deccan*. Delhi: Mushiram Manoharlal Publishers.
Chakrabarti, D. K. (2006). Urban Centers, geographical unit and trade routes in the Gangetic and central India of circa 200 BCE. In: Patrick, O. (Ed.) Between the empires: society in India 300 BCE to 400 BC (pp. 5–31). Oxford, New Delhi.
Chakrabarti, D. K. (2010). *The ancient routes of the deccan and the southern peninsula*. Delhi: Aryan Book Publishers.
Chakrabarti, K. D., Tewari, R., & Singh, R. N. (2003). From the ganga plain to the eastern and western deccan: a field—study of the ancient routes. *Journal of South Asian Studies, 19*(1), 57–71.
Champakalakshmi, R. (1996). *Trade, ideology and urbanization: South India 300 BC to AD 1300*. New Delhi: Oxford University Press.
Chandra, M. (1977). *Trade and Trade Routes in Ancient India*. New Delhi: Abhinav Publications.
Chaudhuri, K. N. (1978). Some reflections on the town and country in Mughal India. *Modern Asian Studies, 12*(1), 77–96.
Crane, R. (1955). Urbanism in India. *Journal of Sociology, 60*(5), 463–470.
Desmet, K., Ghani, E., O'Connell, D.S., & Rossi-Hansberg, E. (2012). *Spatial development of India*. World Bank Working Paper Series No. 6060, South Asia Region, World Bank, New Delhi.
Devra, G. S. L. (2014). Formation and growth of mandies and chowkies in western Rajasthan, AD 1700-1830. In Y. Sharma & M. Pius (Eds.), *Cities in medieval India* (pp. 243–262). Delhi: Primus Books.
Fernandes, B. A. (1928). Sopara: the ancient port of Konkan. *Journal of the Bombay Historical Society, 1*, 65–77.
Fernandes, M. A., & Sharman, G. (2012). Together we stand? agglomeration in Indian manufacturing. World Bank Working Paper Series No. 6062, South Asia Region, World Bank, New Delhi.
Government of India. (1988). *Report of the National Commission on urbanisation: report I*. New Delhi: Ministry of Urban Development.
Heitzman, J. (1987). Temple urbanism in medieval South India. *Journal of Asian Studies, 46*(4), 791–826.
Khan, S. (2014). *The Other JNNURM: What does it mean for Small Towns in India*? CPR Working Paper No. 4, Center for Policy Research, New Delhi.
Kanhu, P. C. (2012). *Unacknowledged urbanisation: the new census towns of India*. New Delhi: Center for Policy Research.
Lakshmi, I. (2014). Warangal: a pre-colonial Andhra City. In Y. Sharma & M. Pius (Eds.), *Cities in medieval India* (pp. 503–524). Delhi: Primus Books.
Mabbett, I. (1993). Danyakataka. *Journal of South Asia, XVI*(2), 21–39.
Mackenzie, G. (1883). *A Manual of the Kistna District in the Presidency of Madras*. Government of Madras, Reprinted in 1992 by the State Editor, District Gazetteer, Hyderabad, Hyderabad.
McKenzie Global Institute. (2010). *India's urban awakening: building new cities, sustaining economic growth*. Bombay: McKinsey Global Institute.
McKenzie Global Institute. (2015). *Four things that will change the world*. Bombay: McKenzie Company's Research.
Ministry of Urban Development. (1988). *Report of the national commission on urbanization* (Vol. 1). New Delhi: Government of India.
Morrison, D. K. (1997). Commerce and culture in South Asia: perspectives from archaeology and history. *Annual Review of Anthropology, 26*, 87–108.
Ray, H. P. (1987). Early historical urbanization: the case of western deccan. *World Archaeology, 19*(1), 94–104.
Saxena, A. B. (2014). Mandvi and Mundra: port towns of Kachchh, Gujarat c. 1550-c.1900. In Y. Sharma & M. Pius (Eds.), *Cities in medieval India* (pp. 575–644). Delhi: Primus Books.
Schoff, W. A. M. (1912). *The Periplus of the Erythrean Sea: Travel and Trade in the Indian Ocean by a Merchant of the First Century*. Translated and Annotated by Wilfred Schoff. New York: Longmans, Green and Company.

Sharma, S. (2014). Locality and city in historical Braj Poems: exploring the Rajput city of Orchcha. In Y. Sharma & M. Pius (Eds.), *Cities in medieval India* (pp. 479–502). Delhi: Primus Books.

Singh, U. (2015). *A history of ancient and early medieval India: from the stone age to the 12th century*. Noida: Dorling Kindersley.

Singh, S. K., & Srivastava, G. K. (2015). *An introduction to the indus valley civilization*. New Delhi: National Museum.

Skinner C. M. (2012). *Urbanization and Interactions in the Early Historic Deccan: The Satavahana, Western Ksatrapa, and Iksvaku Dynasties*. An unpublished Master's Thesis, University of Washington.

Smith, M. L. (2006). The archaeology of South Asian cities. *Journal of Archaeological Research, 14*(2), 97–142.

Stephen, S. J. (2014). Thanjavur: the making of a medieval metropolis. In Y. Sharma & M. Pius (Eds.), *Cities in medieval India* (pp. 209–242). Delhi: Primus Books.

Tripathi, S. (2011). Ancient maritime trade of the eastern Indian littoral. *Current Science, 100*(7), 1076–1086.

Trivedi, M. (2014). Lucknow as center of art and culture. In Y. Sharma & M. Pius (Eds.), *Cities in medieval India* (pp. 401–430). Delhi: Primus Books.

Retrieved December 15, 2015 from http://holisticthought.com/india-during-pre-historic-period/

Chapter 5
Positioning Urban Governance in Planning Pedagogy

Tathagata Chatterji and Aparna Soni

Abstract Transition of Indian economy from an inward looking, public sector dominated developmental state to a more market oriented one through an increased integration with the outside world is bringing newer challenges. Planners require new skills, especially in the areas of urban governance to play their rightful role in shaping Indian cities. To do that, there is an urgent need to revisit the way planning is taught in the country. In this chapter, we suggest specific changes to be effected in the syllabus and the course structure through incorporation of new analytical and conceptual frameworks and also closer integration between theory and studio exercises.

Keywords Urban governance · Planning pedagogy · Public–private partnerships · Globalisation · Free market · Citizen participation · Local government

5.1 Introduction

There is a general recognition in academic and professional literature that the world at large is going through a demographic shift and moving towards an urban age. As a consequence, how this process of urban shift is being governed and managed has been getting greater attention in political and policy discourses—even in a predominantly rural country like India. For instance the new government at the centre announced the Smart Cities Mission 1 year after assuming office in June 2014. This would have been unimaginable even few years back as the political class in India has traditionally prioritised the rural over the urban (Shivaramakrishnan 2011). This heightened interest in the cities is reflective of the ongoing demographic, social and economic changes that India is going through.

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The overarching socio-political and institutional context within which the cities in India are embedded, has undergone and is still undergoing profound changes over the past two decades due to economic restructuring including shift from rural-agrarian activities to urban centric tertiary and industrial activities; liberalisation and market oriented reforms, and globalisation (Basu and Maertens 2007); demographic changes such as age structure of population; aspirations of the youth (Bhagat 2011); and state restructuring including decentralisation and devolution of economic power from national to subnational states (Sinha 2005). Along with these, the rigidities which underpin urban planning function in India in the era of government led development are also slowly eroding. Non-state actors from the corporate sector and civil society have become major stakeholders in the planning process.

Changing equation between state and non-state actors in the planning process, as witnessed in India in recent years, is however far from being unique, and has now been recognised as integral part of the process of change from government to governance—and which in turn is closely linked to market oriented economic policies and globalisation of the world economy (Bell and Hindmoor 2009; Brenner 2004; Harvey 1989; Minnery 2007).

Beginning of economic globalisation and flight of manufacturing jobs to lower wage enclaves forced an era of competition between the old industrial cities of the West. Consequently, governments of these cities shifted gear from their earlier routine preoccupation with managing civic infrastructure and turned more entrepreneurial, to attract new investments—especially in high quality and knowledge intensive sectors. Subsequently, the quest to govern the city in a better way and make the city more attractive to the people compelled government agencies to shed their monopolies in the policy arena and include non-state actors in the corporate sector and local communities in the decision-making processes. The term governance has now come to be recognised as "incorporating the role of the state in policy making and implementation but extending beyond that single actor to include the roles of the private sector (market) and community (civil society)" (Minnery 2007, p. 325).

Transition of the Indian economy from closed door public sector dominated semi socialist systems to more market oriented ways through greater integration with the outside world, are posing similar challenges to India. In this scenario, planners require new skills, especially in the areas of urban governance to play their rightful role in shaping Indian cities. To do that there is an urgent need to revisit the way the subject is dealt with in the urban planning course curriculum in India. In this paper, we are going to discuss the required changes in the course curriculum as well as its method of delivery.

Schools of Planning and Architecture in Bhopal, Delhi and Vijayawada, Indian Institutes of Technology (Roorkee and Kharagpur), CEPT University, Ahmedabad and the ITPI are the premier national level institutes which are conducting courses on urban planning. A perusal of undergraduate and postgraduate planning course curriculums at these institutes reveal that there is a general trend of covering urban governance as a subject in the final year (pre-thesis semester). On the other hand the planning studio exercises begin with local area planning in the third year of Bachelor of Planning; and in the first year second semester in Master of Urban and Regional

Planning. There is no dispute regarding the fact that planning studio exercises require students to understand and document the institutional setup about the area of study. Moreover, master planning exercise remains incomplete without a draft implementation plan. But in the present course structure, students are not adequately equipped to understand the institutional conduct and provisions at the urban and regional levels and especially the political dynamics, which underpin the functional relationships between the institutions—when they start their studio exercises.

Furthermore, the topic of urban governance and management is conventionally taught as a stand-alone theoretical subject short of all cognate relationships. There is a need to come out of this tradition as the issues has strong synergy with the topics of housing, sanitation, water supply and the like, under the overall perspective of environment. Similarly, issues like 'spatial knowledge management' and 'spatial data governance' are areas yet remain untouched; and if incorporated in practice and coordinated with the existing curriculum viz. GIS and other computer aided practices, it can become more interesting and more useful for planning students as well as for planning practice.

In view of the above, this chapter would suggest that the subject of urban governance should be dealt with at two levels and also substantially expanded in scope. The first part would include the organizational theories and administrative models. This course could be taught at an earlier stage to provide a basic understanding of the institutional mechanisms associated with Indian administrative and government frameworks. The second part of the course could be utilized to provide knowledge about more advanced concepts associated with the notion of governance such as inclusion of non-state actors in planning decision making, public–private partnerships, citizen participation in governance, and e-governance, to name just a few. The next section discusses how economic liberalisation and globalisation has brought in new urban challenges by illustrating two specific challenges. The following section then discusses the existing course curriculum in the leading Indian planning schools; and the final section suggests a way forward through specific suggestions on course restructuring.

5.2 Liberalisation, Globalisation and New Spatial Planning Challenges

Intellectual foundation of planning in India—be it economic or spatial is rooted in the ethos of Nehruvian[1] developmental state that developed immediately in the post-colonial era. In this conceptualisation, a sharp line separates planning

[1]Developmental State presupposes a strong role for the government in steering economic and spatial development. There are several models based on this overarching premise, Scandinavian, East Asian etc. (Leftwich 1995). The Nehruvian model drew its inspirations from post-WW-II welfare states of Europe and also the central planning of Soviet Union (Guha 2007).

from politics. Planning is seen as an expertise driven cerebral activity, engaged in envisioning the pathways towards a more desirable future and thus to be separated from day to day, pulls and pressures of politics. As Fainstein puts it, this thought process was underpinned by the thesis, that planning is a rational activity, whose goals and objectives could be guided in a centralised manner by an elite panel of technocrats and bureaucrats (Fainstein 2005).

To streamline planning activities in India, specific institutional arrangements were developed: Planning Commission at the centre, which mainly dealt with the national level economic issues; and urban development authorities at the city level, which primarily engaged in producing physical plans. At the helm of these institutions sat an elected leader: Prime Minister chaired the central Planning Commission, state chief ministers or urban development ministers the development authorities—to provide democratic accountability to this technocratic activity (Shivaramakrishnan 2011).

Most development authorities followed the example of the Master Plan of Delhi as a template and adopted a blueprint oriented planning approach. Master plans, mostly land use control mechanisms, are statutory documents, which presuppose an ideal end state at the end of the planning horizon typically being 15–20 years for implementation of the recommendations. However, master plans continually encounter several implementation difficulties and have been criticised for: lack of synergy with 5-year economic plans; inadequate political support after changes in governments; and difficulties of ensuring rigid land use controls in the face of rapid urbanisation and informal growth of cities. Cities in the Global North have long abandoned the centralised master planning approach and now place greater emphasis on the process of planning rather than the end product. As Peter Hall puts it:

> The subject [of physical planning] changed from a kind of craft … into an apparently scientific activity in which vast amounts of precise information were garnered and processed in such a way that the planner could devise very sensitive systems of guidance and control…. Instead of the old master plan or blueprint approach, which assumed that the objectives were fixed from the start, the new concept was of planning as a *process*…. And this planning process was independent of the thing that was planned (Hall 1996: 327).

In this reoriented approach, the objective of making the city more just or equitable has become central. The most significant part in this is the emphasis on public participation, involving consultations with a range of stakeholders with various roles. It is guided by the thought that consultation with community groups and NGOs will tone down the excesses of purely economic growth oriented policies—which otherwise planning agencies are prone to follow (Healey 2006). In this reoriented conceptualisation, the stakeholders are seen as rational beings, while the role of a planner is visualised as an honest intermediary between competing interests rather than a grand visionary or an obtrusive functionary. Planning is recognised as the outcome of a complex negotiated process rather than as a vision imposed from the top.

Fainstein (2005) argues that the idea of public consultation makes planning more participatory and equitable is somewhat naïve as it ignores the power relationships

between different groups. In a real world situation, the power equations between diverse groups of people having stake in a particular project is never equal and this in turn makes the task of planners much more complicated. Instead of being a neutral referee, the values and viewpoints of the planner assume greater importance. Planning is no longer seen as a technocratic activity divorced from politics, but becomes a deeply embedded part of the political system.

This major reorientation of the thought process impacts the core of the planning profession—including planning education system in the Global North. Planning education has gradually veered closer to social science disciplines, while physical planning has receded to the background (Fainstein 2005). Turning away from its design orientation with the objective of making the city beautiful, planner's education now places emphasis on making the city just and equitable.

A major attempt was made to democratise the planning process in India and move towards a more bottom-up approach through the passage of the 74th Constitution Amendment Act (74CAA) in 1992. The 74CAA explicitly recognised urban local bodies (ULB) as the third tier in India's federal governance structure and explicitly placed urban planning function in the domain of the ULBs (Jain 2003; Shivaramakrishnan 2011). It was envisioned that transfer of urban planning function from bureaucracy dominated development authorities to elected urban local governments would make the planning process more inclusive. However, resistance of state governments has come in the way; and devolution of administrative functions to the ULBs did not happen as envisaged (Shivaramakrishnan 2011).

Urban planning functions in particular continue to be closely controlled by state governments through development authorities, or state town and country planning departments, which not only report to state governments, but are often directly headed by chief ministers. In the post-liberalisation era of increasing economic competition, planning has become an important tool in the hands of ambitious and powerful state leaders in city branding and marketing exercises (Dupont 2011; Ghertner 2011).

Three important points must be noted here. First, from the early 1990s onwards Indian state governments received a high degree of autonomy in economic matters as central government discontinued licencing and other regulatory controls over industrial investments. Second, devolution of power from the state level to ULBs did not follow the set course despite its constitutional mandate. Third, the era of multiparty coalition governments at the national level from 1989 to 2014 further strengthened the political leverage of state leaders.

In this scenario, urban spaces in state capitals are turning into platforms for the play of regional political and economic aspirations. Regional leaders in alliance with local corporate barons, media houses, and civil society elites are attempting to make their prime cities as world class by emulating foreign cities—to attract global investments. Entrepreneurs appear to have overtaken governments and proclivities have also institutionalised in such activities. For example: Bombay First, Bangalore Agenda Task Force (BATF) and Agenda for Bengaluru Infrastructure Development (ABIDe) are some of the examples (Benjamin 2010; Nair 2005).

Economic and spatial policy decisions—especially in the metro cities, are now being increasingly influenced by new actors on the planning stage—including taskforces consisting of political-administrative-corporate-civil society elites. Urban planning is no longer the sole preserve of state agencies. Urban land is getting increasingly commoditised under the rubric of public–private partnership (PPP). PPPs and other market friendly instruments like infrastructure bonds and debt financing has become the preferred routes for funding mega infrastructure projects in place of assured state funding under budgetary allocations as was the case in the days of tax financed developmental state.

However, elite driven attempts at 'first-worlding' of Indian cities have been criticised for widening social polarisation and being detrimental to the interests of the urban poor and the migrants tied to the informal sector (Benjamin 2010; Ghosh 2005; Nair 2000). They claim that hosting of mega-sports events, building of mega infrastructure projects and associated city clean up drives have increased urban fragmentation and severely hurt the interests of the poor through slum evictions and squatter resettlements.

What then are the roles of the planners? The roles of urban planners in making the cities smart, sustainable and inclusive cannot be over emphasised. According to a study by the UN Habitat, the quality of urban planning and design are fundamental factors in promoting prosperity, quality of life and social equity. Certainties which underpinned urban planning in India in the era of public sector led development are fast eroding. We discuss the challenges of managing spatial expansion of Indian cities and growing informalisation—as illustrative examples of the several formidable challenges confronting us today and reframe the academic requirements for the age of globalisation and liberalisation.

5.2.1 Example I: Challenge of Urban Spatial Expansion

Over 90 % of the IT services have been for exports—the most impressive success story of the contemporary Indian economy is happening in seven cities including Bangalore, Chennai, Delhi NCR, Hyderabad, Kolkata, Mumbai and Pune metropolitan regions (NASSCOM 2012). Noncentral areas of these cities have emerged as the preferred production and consumption locations of these activities in the new globalised economy with the construction of large number of office parks, special economic zones (SEZ), shopping malls and gated housing enclaves by private developers and are often funded by foreign investors (Chatterji 2014).

To attract such high quality investments, state governments are opening up large parcels of land in fringe areas of metropolitan cities either directly acquiring agriculture land or facilitating land use conversions from agriculture to urban use for those purchased by private developers. Congested city centre locations are obviously unable to meet the high quality real estate specifications of the globalised economy and economic heft of the metropolitan cities is moving towards the periphery.

But a significant component of investment flows in these new economic enclaves have turned out to be of a speculative nature (Goldman 2011). From 2005 onwards, the SEZ Act 2015 and simultaneous liberalisation of the FDI norms, allowed global fund managers to invest in Indian property markets, and Indian real estate companies took advantage of easy capital flows to acquire large chunks of land for promoting IT services oriented SEZ projects (Chatterji 2014). But many of the high profile projects are yet to see the light of day and some of the promoters have even applied for cancellation of their SEZ status so as to free up the land for housing and other commercial projects thus reneging on the original purpose for which they got land.

The development process of these new economic enclaves have often followed the ease of land assembly by property developers rather than the logic of infrastructure delivery envisaged in master plans (Chatterji 2014). As a result an intensely heterogeneous, complex and segmented landscapes have come up in fringe areas (Dupont 2005) in which high technology and high security enclaves of the new digital age intertwine with centuries old rural habitats.

However, rapid expansion of urban activities into the periphery has become controversial owing to the marginalization of original inhabitants and their livelihood vulnerabilities (Banerjee-Guha 2010; Dupont 2007). Land use changes due to urban expansion compel rural communities to reorient their livelihood strategies for which they are generally unprepared and are unable. They are unable to reap dividends from the new economy. The globally oriented enclaves of high technology thus are unable to create little backward and forward linkages with their immediate neighborhoods. Land related conflicts have flared up in several parts of the country, all disrupting social and political harmony.

The changing dynamics at the urban fringe and the consequent discontent require us to more vigorously expose planning students to the political-economic contexts within which urban planning is being undertaken and pursued.

5.2.2 Example II: Challenge of Informalisation

Major urban centres of India have witnessed impressive economic growth in the post-liberalisation period but also encountered problems of jobless-growth and spurt in informal sector economic[2] activities. Research by IIHS claims that almost 70 % of the jobs in the cities are being generated on account of unorganised economic activities (IIHS 2012).

Three major reasons are attributed to this (Ghosh 2010). First, software exports and other IT enabled services create good employment opportunities for the

[2]Following Castells and Porter (1989) the term 'informal' has been used in this paper in the commonly understood way to mean activities which are 'unregulated' or outside the institutionalised local planning regulations, but not necessarily illegal. For alternative definitions see Roy (2009).

educated middle classes but not so much for the unskilled or semi-skilled labour force. Second, rolling back of regulatory controls and gradual adaptation of market oriented economic policies over the past two decades have not specifically encouraged organised sector employment and have given rise to flexible and contractual employment—especially at the lower income end of the job market. Third the agrarian sector started facing problems of low productivity and low growth in employment and the surplus labour migrated and took to informal work in the cities.

Dearth of employment opportunities in the formal sector is manifest in the housing supply scenario. As per census 2011, over 65 million people in Indian cities live in slums—that is greater than the total population of Britain. Although the decadal rate of increase in slum population have been slower compared to the rate of urbanisation between 2001 and 2011 than over the previous census decade, still almost a fifth of India's urban population lives in slums. In big cities like Mumbai, proportion of slum population is almost 40 %.

It is important to see that unorganised sector housing, trade, manufacturing and construction activities, which provide shelter and livelihood for the urban poor, although outside the ambit of planning regulations, are not necessarily illegal activities. In many cases there is an indefinite and often symbiotic relationship between formal and informal settlements (Chatterji 2007). For instance, the middle class residents of the planned sub-city of Dwarka in southwest Delhi frequently shop and run businesses from informal settlements of Rajapuri across the road while drivers, maids and security guards who work at the cooperative housing societies of the planned city live in the slums nearby. This interrelationship between formal city and informal city has become the bedrock of contemporary social life and urban politics in India (Chatterji 2013).

Over the past two decades people living in formal and informal neighbourhoods have tended to follow two clearly divorced pathways in matters of accessing and engaging with urban local government (Chatterjee 2004). Urban middle class living in formal, planned neighbourhoods have shunned partisan electoral politics of municipalities and have taken the 'apolitical' route of civil society activism through NGOs and RWAs. On issues related to urban governance, most NGOs and RWAs have espoused causes close to middle class concerns such as cleaner city environments, relocation of polluting industries and architectural heritage conservation—the issues which are often neglected by conventional politicians (Chatterjee 2004).

On the other hand, urban poor who earn their living through the informal economy tend to take more obvious and accessed route by seeking protection and facilitations from elected politicians and local government functionaries. This patronage network becomes a crucial mechanism in mobilising popular support during the election times. Political affiliations at this microscale is not moored in ideological convictions, but is being driven by survival instincts in a hostile environment, or 'politics of survival'—as noted by Partha Chatterjee (2004).

Since middle class citizens seldom take part in municipal elections, the patron-client linkage between political functionaries and urban informal sector has come to wield considerable influence in local politics as process of urban local body

elections has come to be mediated through of informality (Chatterji 2013). According to Roy (2009) inability to reconcile the systemic ambiguities in the relationship between formal and informal fundamentally weakens the planning system in India. She argues that informality is being bred by inadequacies of planning and administrative systems such as lack of transparency in land titling system as well as application of different yardsticks to measure informality such as condoning of land use violations by the rich and the powerful, but penalising the poor.

Two apparently unrelated narratives of changing peri-urban dynamics and growing informalisation, when seen together, bring to the fore, some of the paradoxes of India's urban transformation. To play a more meaningful role in steering developmental agenda in this age of globalisation and liberalisation, the profession needs to move away from techno-centricity of the blueprint approach and instead adopt a more political and public policy oriented line to analyse complexities of the contemporary urban India, and acknowledge the shift from 'government to governance' in the public arena. The new age planning curriculum needs in particular to emphasise:

- The changing relationships between state and non-state actors (corporate, civil society and local communities) in the planning process. Managing public–private partnerships for delivery of urban infrastructure. For example, Columbia University has a full-fledged 3-credit course on managing PPP.
- Analysis of governance models and typologies (e.g. corporatist, populist, managerial, clientelist, etc.) through application of theoretical tools such as integrated urban governance framework (DiGaetano and Strom 2003) to understand how place specific variations in planning cultures and processes of contestations, collaborations and coalitions between local actors shape development agenda.
- Planning communication, stakeholder analysis and role of planner as a mediator; analysis of the power relationships between stakeholders through application techniques such as 'power cube' (Gaventa 2005).
- Strategic planning; urban economic competition, city branding and marketing; readying cities to face regional, national and international competition; planning for economic uncertainties; how planning policies can influence growth pattern.
- Relationship between the formal and informal settlements; economic value chains and interdependencies; linkages between the informal sector and the urban governance regimes; politics of slum upgrading and squatter resettlement.

These changes can be brought about under the rubric of urban governance in the educational curriculum. At the same time, the syllabus of urban governance needs to be reframed. Hitherto, courses in urban governance mainly focused on the roles of the formal institutions and government administrative apparatus. That needs to change.

Based on our discussions above, we suggest that the subject of urban governance is handled at two stages. The first could include a study of organizational theories and formal administrative structures and institutional models. This course could be

taught at an earlier stage to provide a basic understanding of the institutional mechanisms associated with Indian administrative and formal government framework. The second stage of the course could provide knowledge about more advanced concepts associated with the notion of governance through association of non-state actors in the decision-making process.

5.3 Towards a Governance-Centric Academic Curriculum

Observing the strong need of knowledge of governance among planners, it is inevitable to discuss how this knowledge first reaches the prospective professional at a planning school. In India, planning discipline, as in other parts of the world, is imparted or taught both at undergraduate and postgraduate levels in more than 21 public and private schools recognized by the ITPI.[3] In the presence of such a wide variety of institutes under many types of controlling authorities with varied pedagogical approaches and syllabi, this research is restricted to studying only Centrally Funded Technical Institutions (CFTIs), focussing largely on undergraduate urban planning curriculums.

Schools of Planning and Architecture (SPAs) located at Delhi, Bhopal and Vijayawada, and Indian Institutes of Technology (IIT) located at Roorkee and Kharagpur are the premier central government institutes imparting technical education in the field of planning. Undergraduate programmes in planning are taught at the three schools of planning and architecture, whereas postgraduate programmes in planning are taught in all SPAs and IITs. There are various specialisations for postgraduate programmes in all these institutions as illustrated in Table 5.1. It shows bachelor's programme is a 4-year course and the postgraduate courses include 4 semesters across 2 years. Both the levels involve various theory subjects in combination with studio-based exercises every semester. All the programmes include thesis work in the final semester.

To situate urban governance in the undergraduate planning programme, it is important to devise a broad structure and contents of the subject. Across the CFIs imparting planning knowledge, it is found that the detailed programme structure (the syllabus) for the subject changes from one institute to the other along with the subject nomenclature varying. The question to be asked here is if differing subject names as 'urban management', 'managing urban development' and 'urban management and governance', indicate variations in subject approach as well. The structure of the subject syllabus is found to be more or less similar. Across institutes it is a theoretical subject with course contents divided into five basic units.

[3]ITPI recognized courses and schools list 2013 accessible at http://itpi.org.in/files/List_of_recognized_schools_or_institutions_upto_April_2013.pdf.

Table 5.1 Various programmes of planning across premier institutes

Institute	Department	Bachelors programme	Master's programme
IIT—Roorkee	Department of architecture and planning	Not applicable	Urban and rural planning (MURP)
IIT—Kharagpur	Department of architecture and regional planning	Not applicable	City planning
SPA—Delhi	Department of planning	Bachelor of planning	Urban planning
			Regional planning
			Environmental planning
			Housing
			Transport planning
SPA—Bhopal	Department of planning	Bachelor of planning	Urban and regional planning
			Environmental planning
SPA—Vijayawada	Department of planning	Bachelor of planning	Environmental planning and management
			Urban and regional planning

Source Compiled from syllabi of various planning institutions (2015)

Table 5.2 below highlights the broad course contents. Taking a closer look at these individual units, one can group these into three distinct dimensions:

- Institutional modalities
- The concept of governance
- Management with emphasis on decision making and leadership

Table 5.2 Broad course contents

Urban management		Managing urban development		Urban management and governance	
Unit 1	Introduction to management	Unit 1	Introduction to players and processes involved in managing urban development	Unit 1	Introduction to urban governance
Unit 2	Legal framework	Unit 2	Public administration	Unit 2	Governance and the government
Unit 3	Urban management	Unit 3	Governance and urbanization	Unit 3	Urban management
Unit 4	Organisations involved in Urban management	Unit 4	Urban management	Unit 4	Organizations involved in urban management
Unit 5	Coordination of participation	Unit 5	Decision making and leadership	Unit 5	Governance and urbanization

Source Compiled from syllabi of various planning institutions (2015)

One observation worthy of attention is that when one institute focuses upon acquainting students with the governance dimension, the other institute is able to touch only upon the aspect of participatory governance in urban management. On the one hand for an institute, leadership and decision making are an integral part of the subject while others meagerly introduce these concepts or include it as an entirely separate or disconnected subject. Nevertheless, across institutes, the subject is being taught in the seventh semester, fourth year and covering institutional modalities in depth. A major portion of the subject develops an understanding of the Indian government and its functioning. It also situates urban development and planning apparatus in India. Accepting that every institute may have its own traditions and philosophy to follow, yet the need of imparting knowledge on institutional capacities and arrangements of urban management in India remains an integral part of them notwithstanding differences in individual syllabi. Thus every institute is invariably acknowledging the concepts government and governance in urban management, but their individual syllabi manifest significant differences.

5.4 Incorporating Urban Governance in Urban Planning Course Structure

Government, as is well understood, has certain public goods to be delivered to its citizens. In return for these services, government collects taxes. An increasingly urbanizing India with proposed urban corridors, smart cities, SIRs and SEZs as its urban features, has a huge task in planning this growth, managing land, water supply, sanitation, solid waste, energy, urban housing, ecology and urban environment. The machinery or the system enabling these is an integral part of urban service delivery governance. This includes institutional arrangements, where sectoral public institution mapping (both vertical and horizontal) across different levels of government is required. Equally important are the various models of public–private partnerships or exchanges and interactions along with understanding of networks of actors. Undoubtedly, there is a definite need of governance being taught to planning students. Importantly, having a clear understanding of the federal structure of India, its functioning, urban local bodies, their roles and responsibilities and structures, are definitely a prerequisite for the understanding of public service delivery machinery.

On the contrary it is found that across planning institutes under study, subjects dealing with sectors, namely transport and environment begin briefing about their respective institutional setups right from the fourth semester. The subject Traffic and Transportation Planning includes Planning and Management of Transport System with emphasis on the existing organizational and legal frameworks. Ecology, Environment and Resource Development in the syllabus has a unit that deals with environmental policies and agencies involved in environment protection; public participation and role of planners in order to improve the future environment.

Likewise, the subject of Housing and Community Planning also deals with the role of different institutions in housing; international agencies, NGOs, the state, financing organizations, private developers, and cooperatives. Utilities and Networks is another subject covering all basic services and also require the students to be acquainted with the financial and institutional aspects of utilities planning in the fourth semester. Even Sustainable Urban Development taught in the fifth semester has a unit covering air quality and solid waste management and norms, standards, laws, organizations and policies related to urban air quality control and solid waste management. The syllabi across the institutes do not seem to follow a set pattern. When a student is taught about solid waste management in fourth semester and urban local bodies are responsible for its management in an urban area; the student is unaware of what an ULB is, what the 74th CAA is and its relationship with the twelfth schedule, which is taught in the fifth and seventh semester. In one of the cases, the subject of Public Finance is situated in the sixth semester. The very first unit of the subject deals with municipal finance—nature and composition of income and expenditure, limitations and need for revenue enhancements; expenditure control methods and mechanisms; budgetary allocation from central and state governments for urban development; assistance from foreign donors and multinational agencies; non-traditional sources of funding; market access; pool finance and prerequisite conditions for accessing non-traditional funds. Here a student is expected to understand municipal finance without having any idea of the working and structure of local governments in India.

Closely related to urban governance is two major subjects, namely Planning Legislation and Planning Practice (see Table 5.3) that deals with the planning apparatus in India. As observed, they do give an idea of the structure of Indian government, but are taught in the fifth or fourth semester, or even sometimes in the final semester. More so, the above disarray does not only reflect in theory classes, but also affects the studio exercises. Across institutes under study, the sixth semester studio has urban development plan as the output. One important deliverable of the studio is to understand the governance structures for plan implementation, but governance as a concept is only introduced in the subsequent seventh semester. One may argue that the subject of planning legislation taught in the fifth semester does give an overview of organizations related with plan implementation. But this knowledge does not bridge knowledge gap in understanding the difference between government and governance structures and functioning of governments.

The perspectival gap indicated above deepens further when the course curriculum of an institute (see Table 5.2) through the fourth year does not take into account the various dimensions of governance being discussed in the professional and public discourses. This throws some light upon the failure of institutes in updating their individual syllabus to introduce new and contemporary concepts. It is arguable that it is the responsibility of the academic staff to inform students of the latest developments in the subject; yet there has to be a system of periodic updating or revision of the syllabus to better synergize one subject with the other. The concept

Table 5.3 Subjects that relate to urban governance

Regional science and planning sixth semester	Planning legislation—fifth or eighth semester	Planning practice—fourth semester
Plan implementation and planning process under DPC and MPC	Concept of law	Institutional arrangements for planning practice
	Indian constitution	Development authorities
	Laws and acts for planning and development	Multi-stakeholder planning (which is a part of participatory or collaborative planning)
	Town and country planning acts and the 73rd and 74th constitution amendment acts	
	Organizations for plan implementation—role of different state agencies for plan implementation; methods of coordination between planning and implementation agencies; statutory town planning schemes, contemporary model schemes of some states; significance of enforcement and single window system.	

Source Compiled from syllabi of schools of planning (2015)

of collaborative governance is relevant as it interfaces across political science, economics, public administration and sociology and organization theory. There is also a need to use geo-information technology, which is one emerging technological tool. These subjects are discussed as knowledge of spaces and their its management (Bruckmeier and Tovey 2008; Coaffee and Healey 2003). GIS and urban management are both parts of urban planning course curriculum, but they do not find place in the planning programme so that these can be integrated.

A stand-alone theory subject can be given more practical and experimental shape and introduced as an independent studio exercise. The studio exercise can also explore emerging areas of concern such as governance of smart cities; governance relationships between the metropolitan region and privatized enclaves like SEZ, and private townships; spatial data management and spatial governance. It is suggested that we need to formulate an independent studio for the subject of urban governance. The challenges ahead of us are the smart cities and an era of equally smart governance. Potential can be developed in SDI governance, geospatial governance and much more to come. Also decision making and leadership, an important component of the management dimension of the subject can be made interesting with testing latest models of decision making, namely 'the power cube' (Gaventa 2005) and framework for integrated urban governance (DiGaetano and Strom 2003).

5.5 The Way Forward

In view of the above, this paper suggests that the subject of urban governance should be dealt with in a 'split mode'. The inspiration to this is the All India Council for Technical Education approved model curriculum for undergraduate programme in planning of May 2008. It proposes to split the subjects into three stages. First to be introduced in the sixth semester as Urban Management—I, the second part Urban Governance to be taught in the seventh semester and the third Urban Management—II concluded in the eighth semester (see Table 5.4). The three parts deal with the three dimensions of the subject of urban governance pointed out earlier. Broadly following the model of the All India Council for Technical Education syllabus, this chapter suggests introduction of Urban Management—II, which deals with managerial and decision-making skills as an elective subject rather than a core theory subject.

Thus differing slightly from the model curriculum, we suggest that the subject of urban governance should be taught at two levels and also substantially expanded in scope. The first level named here as UMG—A must include organizational theories and administrative models. This course has to be taught at an early stage, preferably in the fourth semester, to provide a basic understanding of the institutional mechanisms associated with Indian administrative set up within the conventional government framework to help students better use this knowledge along with the topics to be taught, namely housing, sanitation, water supply, environment, transport among several others. The second level named here as UMG—B proposed to be introduced in the sixth semester of the course should impart knowledge about more advanced concepts associated with the notion of governance including inclusion of non-state actors in planning decision making; public–private partnerships; citizen participation in governance; e-governance and global governance.

Along with the above reforms, the most needed change is in the sequencing of the various subjects that bear a direct relation to the subject of Urban Governance.

Table 5.4 AICTE model course content—undergraduate programme in planning, May 2008

Urban management—I Semester VI	Urban governance Semester VII	Urban management—II Semester VIII
Role of management in urban development	Introduction to urban governance	Decision making
Urban developments in India	Governance and the government	Leadership
Organizations for urban development	Governance for urban management	Communication
Urban developments and public/private sector	Governance and urbanization	Political systems, social systems and planning
Financing urban development	Governance in post 74th amendment scenario	Conflicts and resolutions

Source http://www.aicte-india.org/downloads/b_tech_planning_071112.pdf

UMG—A can be followed by Planning Legislation. The subject of Urban Finance must have UMG—A as a prerequisite and can run simultaneous to UMG—B. The subject of planning practice should find a mention in the final semester. Last but not the least, there is an urgent need to revise the course contents of all subjects to reduce duplication.

After two decades of economic reforms, India is now about to enter the third stage of its growth trajectory. Urbanisation has finally been acknowledged as integral to the growth process and new initiatives of smart cities have been launched. Now is the time to address the requisite changes in urban planning course curriculum for otherwise planning education and profession will start to diminish in importance and relevance.

References

Banerjee-Guha, S. (2010). Introduction: Transformative cities in the new global order. In S. Banerjee-Guha (Ed.), *Accumulation by disposession*. New Delhi: Sage.

Basu, K., & Maertens, A. (2007). The pattern and causes of economic growth in India. *Oxford Review of Economic Policy, 23*(2), 143–167.

Bell, S., & Hindmoor, A. (2009). *Rethinking governance: The centrality of state in modern society*. Melbourne: Cambridge University Press.

Benjamin, S. (2010). Manufacturing neoliberalism: Lifestyling Indian urbanity. In S. Banerjee-Guha (Ed.), *Accumulation by disposession*. New Delhi: Sage.

Bhagat, R. B. (2011). Emerging pattern of urbanisation in India. *Economic and Political Weekly, 46*(34), 10–12.

Brenner, N. (2004). *New state spaces: Urban governance and the rescaling of statehood*. Oxford: Oxford University Press.

Bruckmeier, K., & Tovey, H. (2008). Knowledge in sustainable rural development: From forms of knowledge to knowledge processes. *Sociologia Ruralis, 48*(3), 313–329.

Castells, M., & Portes, A. (1989). World underneath: The origins, dynamics, and effects of the informal economy. In A. Portes, M. Castells & L. A. Benton (Eds.), *The informal economy: Studies in advanced and less developed countries*, Baltimore: Hopkins University Press.

Chatterjee, P. (2004). *The politics of the governed*. New York: Columbia University Press.

Chatterji, T. (2007). Peri-urban interface in the context of globalisation—a review of the planning process of Delhi, a paper presented to IFHP 51st World Congress, Copenhagen, September 2007.

Chatterji, T. (2013). Micro-politics of urban transformation in the context of globalisation: A case study of Gurgaon. *India, South Asia: Journal of South Asian Studies, 36*(2), 273–287.

Chatterji, T. (2014). *Local mediation of global forces in transformation of the urban fringe—the story of India's regional IT clusters*. Saarbrücken, Germany: Lambert Academic Publishing.

Coaffee, J., & Healey, P. (2003). 'My voice: My place': Tracking transformations in urban governance. *Urban Studies, 40*(10), 1979–1999.

DiGaetano, A., & Strom, E. (2003). Comparative urban governance: An integrated approach. *Urban Affairs Review, 38*(3), 356–395.

Dupont, V. (2005). *Peri-urban dynamics: Population, habitat and environment, on the peripheries of large Indian metropolises.* New Delhi: Centre de Sciences Humaines.

Dupont, V. (2007). Conflicting stakes and governance in the peripheries of large Indian metropolises—An introduction. *Cities, 24*(2), 89–94.

Dupont, V. (2011). The dream of Delhi as a global city'. *International Journal of Urban and Regional Research, 35*(3), 533–554.
Fainstein, S. S. (2005). Planning theory and the city. *Journal of Planning Education and Research, 25*, 121–130.
Gaventa, J. (2005). *Reflections on the uses of the 'power cube' approach for analyzing the spaces, places and dynamics of civil society participation and engagement. Prepared for Dutch CFA Evaluation 'Assessing Civil Society Participation as Supported In-Country by Cordaid*. Novib and Plan Netherlands: Hivos.
Ghertner, D. A. (2011). Gentrifying the state, gentrifying participation: Elite governance programs in Delhi. *International Journal of Urban and Regional Research, 35*(3), 504–532.
Ghosh, A. (2005). Public-private or a private public? Promised partnership of the Bangalore agenda task force, *Economic and Political Weekly*, *40*(47), 4914–4922
Ghosh, J. (2010). *Poverty reduction in China and India: Policy implications of recent trends*. United Nations, New York: Department of Economic and Social Affairs.
Goldman, M. (2011). Speculative urbanism and the making of the next world city. *International Journal of Urban and Regional Research, 35*(3), 555–581.
Guha, R. (2007). *India after Gandhi*. New Delhi: Macmillan.
Hall, P. (1996). *Cities of tomorrow*. Oxford: Blackwell.
Harvey, D. (1989). From managerialism to entrepreneurialism: The transfozrmation in urban governance in late capitalism. *Geografiska Annaler Series B, Human Geography, 71*(1), 3–17.
Healey, P. (2006). *Collaborative planning—shaping places in fragmented societies*. New York: Palgrave Macmillan.
IIHS. (2012). *Urban India 2011: Evidence*. Bangalore: Indian Institute of Human Settlements.
Jain, A. K. (2003). Actioning new partnerships for Indian cities. *Cities, 20*(5), 353–359.
Leftwich, A. (1995). Bringing politics back: Towards a model of the developmental state. *Journal of Development Studies, 31*(3), 400–427.
Minnery, J. (2007). Stars and their supporting cast: State, market and community as actors in urban governance. *Urban Policy and Research, 25*(3), 325–345.
Nair, J. (2000). Singapore is not Bangalore's destiny. *Economic and Political Weekly, 35*(18), 1512–1514.
Nair, J. (2005). *The promise of the metropolis: Bangalore's twentieth century*. New Delhi: Oxford University Press.
NASSCOM. (2012). *Strategic Review 2012*. National Association of Software and Service Companies. Retrieved Sept 4, 2012, from http://www.nasscom.org/indian-itbpo-industry.
Roy, A. (2009). Why India cannot plan its cities: Informality. *Insurgence and the Idiom of Urbanisation, Planning Theory, 8*(1), 76–87.
Shivaramakrishnan, K. C. (2011). *Re-visioning Indian cities: The urban renewal mission*. New Delhi: Sage.
Sinha, A. (2005). *The regional roots of developmental politics—A divided leviathan*. New Delhi: Oxford University Press.

Part II
Urban and Regional Planning Knowledges

Chapter 6
An Exploration into the Multiplicity of Planning Knowledges

Ashok Kumar

Abstract Increasing social diversity, entrenched spatial inequalities, spatial exclusions and injustices, environmental degradations, and rising levels of urbanization in India are some of the main causes for discussing multiplicity of planning knowledges. It is argued that if these complex issues were to be better understood and peacefully resolved, we need to include a variety of knowledges when training of planning students. Since planning schools produce fresh planners and retrain practicing planners, there is no better place to begin talking about planning knowledges in opposition to the body of planning knowledge. This chapter attempts to make that beginning with the hope that some changes in planning curricula involving multiplicity of knowledges will follow.

Keywords Multiplicity of knowledges · Sites of knowledge production · Scientific rationalism · Self-enumeration · Housing exhibitions · Toilet festivals

6.1 Introduction: What is Knowledge

Urban and regional planning began as a profession by collecting principles, theories, techniques, approaches, and models (a body of knowledge) notably from the disciplines of sociology, geography, economics, civil engineering, and architecture. As in these disciplines in the first half of the twentieth century, planning also built its reputation as a profession on the principles of "scientific rationalism." Reasoning based upon scientifically verifiable facts was preferred over subjective values. But instrumental rationality started to wane, at least in the planning schools, in the 1970s when political economy concerns took center stage with the publication of David Harvey's now classical book "Social Justice and the City." Soon after, another completely different stream called Collaborative Planning centered on

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consensus building started to take hold in the early 1980s and dominated planning discourse since then.

Planning moved from scientific rationalism and its belief in the identifiable body of knowledge based on instrumental reasoning to collaborative planning based on consensus building and socially produced knowledges. Planning started with a belief in the body of planning knowledge created rigorously, empirically, and scientifically by extraordinary scholars to multiple knowledges produced socially by common human beings including planning academics and practitioners. This has changed the way we perceive planning knowledge(s) today in developed as well as developing world.

Seeking to identify impacts on planning education in India, this paper traces the transformative journey starting from the specific body of planning knowledge to multiple planning knowledges. Specifically, I would like to critically examine some of the concepts and frameworks that these new approaches have recently introduced to planning including "space," "power," and "knowledge." The thrust of my argument is that planning academy in India has not moved to catch up with new approaches and knowledges. Through this chapter, I would also like to argue that there is an urgent need to produce new Indian planning knowledges for bettering complex and multiple planning practices.

For Foucault "episteme" means a stable ensemble of unspoken rules, which are embedded in history. These unspoken rules govern knowledge. Knowledge and power are inseparable. There is no knowledge without power and there is no power without knowledge. Power is generally perceived in negative terms but for Foucault power is also productive. Power is not possessed by individuals or organizations, but is ubiquitous throughout the society because Foucault perceives power as a relation rather than an object to be owned by individuals or organizations (Mills 2003).

The French "connaissance" refers to a specific body of knowledge in a particular discipline such as planning, geography, economics, anthropology. The French "savior" refers to knowledge in general terms, a sum total of connaissances. But Foucault defines "connaissance" in relational terms: "By connaissance I mean the relation of the subject to the object and the formal rules that govern it. Savoir refers to the conditions that are necessary in a particular period for this or that type of object to be given to connaissance and for this or that enunciation to be formulated" (Foucault 1972, p. 15).

In this chapter, I perceive knowledge as a body of contested discourses and understandings relied upon as well as ignored by planners, and policy makers. Some knowledges are regarded as worthy and recognized as such, while others equally valid but different knowledges are excluded and silenced from public discourses. Knowledges are of course contested continuously and power games determine their validities and acknowledgements, notwithstanding the fact that excluded knowledges do not remain irrelevant for all times to come. Resistance and undermining of legitimated discourses is also a continuous process that undergirds repeated enforcement of dominant forms of knowledge.

6.2 Production of Knowledge in Planning

Two types of knowledge—propositional knowledge, and ability knowledge—appear to be comparatively more useful to start a discussion about multiplicity of planning knowledges. Propositional knowledge is "knowledge of a proposition. A proposition is that is asserted by a sentence which says that something is the case—e.g., that the earth is flat, that bachelors are unmarried men, and that two plus two is four, and so on" (Pritchard 2006, p. 6). Ability knowledge is "know-how" rather than "know that," knowledge gained through formal instruction. Ability knowledge is about action in practice. For instance, "I know how to swim, for example, but I do not thereby know a set of propositions about how to swim. Indeed, I am not altogether sure that I could tell you how to swim, but I do know how to swim nonetheless (and I could prove it by manifesting this ability—by jumping into a swimming pool and doing the breaststroke, say)" (Pritchard 2006, p. 6). "Know who" is another dimension added to "know that" and "know how." Know-who refers social interactions and collaboration; it also about social networking. Know-who contributes to identification of needs and the relevant people and professionals who can act to fulfill these needs. Know-who along with know-how and know-that is discussed in a recent report of the MacArthur Foundation, which valorizes the importance of all three critical parts of knowledge for "learning in informal and media rich environments." It concludes and recommends:

> Valued outcomes include more than just acquired knowledge. The definition of knowledge for assessing informal learning should be broad enough to include know-how and know-who as well as know-that. The assessment should examine evidence that knowledge is being used (knowing how to take the next step in an activity) and that this use persists, grows, and cumulates over relatively long periods. Relevant knowledge includes such socially oriented capabilities as assisting others to achieve valued learning outcomes, completing tasks cooperatively, and knowing how to build relationships and negotiate social networks (Lemke et al. 2015, pp. 91–92).

Nevertheless, city planning being a movement "from knowledge to action," as famously and convincingly noted by Friedmann (1987), city planners need to have both propositional knowledge as well as ability knowledge. Propositional knowledge is critically important for writing various kinds of development plans including regional and master plans. Effective use of written material is all about making propositional knowledge explicit in the form of planning policies, plans, and detailed project reports. Making propositional knowledge accessible to citizens is one of the key skills planners ought to acquire. Ability knowledge is the other end of this knowledge spectrum. Planning requires planners to perform complex tasks when the planning environment is very uncertain indeed. Ability knowledge is more about taking action in practice in the presence of communities, businesses, governments, and the citizens at large. Although planning is regarded a team work, yet planners are expected to secure and possess some of the core abilities in the form skills: ability to listen carefully and sympathetically particularly in the case of

those located at the margins of a society; ability to interpret existing media such as Public graffiti and puppetry; critical reflection, etc.

Planning schools, among other things, are in the business of transferring the existing knowledge from teachers to students, and in complex ways from students to faculty. Both learn from interacting with one another. These could have been straight forward processes, if Michael Polanyi had not made critical interventions through his "Personal Knowledge" (1962) and later on through "The Tacit Dimension" (1966). For Polanyi tacit knowledge is obtained from traditions, social practices, values, and prejudgments and is difficult to transfer to others. But more crucially it is an important part of the scientific knowledge. Michael Polanyi was the first to talk about tacit knowledge when he famously noted that "we can know more than we can tell" in his book "The Tacit Dimension" (1966, p. 4). Pierre Bourdieu also developed the idea of tacit knowledge, which partly coincided with Michael Polanyi. According to Bourdieu tacit knowledge is "not consciously possessed by the agent or able to be articulated by her in propositional form but which nevertheless regulates her activities" (Gerrans 2005, p. 54). Tacit knowledge is "which exists in a practical state in an agent's practice and not in their consciousness or rather in their discourse" (Bourdieu 1977, p. 27 as quoted by Gerrans 2005, p. 54).

But great believers in the Enlightenment project, Indian planners have continued to believe in empirically driven knowledge where scientific laws dominate education and research. Subjective understandings are seen less valuable and facts derived through empirical research are given more weightage. Most planning schools in India have yet to come out of this misplaced belief that the only credible way to produce knowledge is empirical research. Table 6.1 clearly shows that there are a number of methods, types, and sources of knowledge. It also shows that the Indian planning schools place heavy reliance on the empirically secured instrumental reason. Only on special occasions and for special projects, other methods of

Table 6.1 Knowledges and their use in planning schools in India

Sl. No.	Methods of producing knowledge	Types of knowledge	Use in planning education in India
1	Empirical studies and experimentation	Scientific knowledge	Heavy reliance on instrumental reason
2	Storytelling	Interpretive knowledge	Not used in planning
3	Photographs, and other images	Scientific knowledge and interpretive knowledge	Used to a lesser extent
4	Public graffiti, puppetry, and singing, walking, etc.	Interpretive knowledge	Not used in planning
5	Community organizing and consultations	Scientific knowledge and interpretive knowledge	Used to a lesser extent
6	Participation in planning practice	Scientific knowledge and interpretive knowledge	Used to a lesser extent
7	Contemplation and reflection on the inner self	Divine and spiritual knowledge	Not used in planning

Source Compiled and adapted from Sandercock (1998); Bourdieu (1977, p. 27 as quoted by Gerrans 2005, p. 54); and Pritchard (2006, p. 6)

knowledge are used. Mixed use of these methods is rarely used in the planning schools for education and research with few exceptions.

This brings me to the question of multiplicity of planning knowledges and their relevance to planning education. I believe use of diverse and multiple knowledges is valuable and critical for enriching planning education, research and the planning profession itself. I go along with Paul K. Feyerabend who explains: "Knowledge … is not a series of self-consistent theories that converges towards an ideal view; it is not a gradual approach to truth. It is rather an ever—increasing ocean of mutually incompatible (perhaps mutually incommensurable) alternatives, each single theory, each fairy tale, each myth that is part of the collection forcing the others into greater articulation and all of them contributing, via this process of competition, to the development of consciousness. Nothing is ever settled, no view can ever be omitted from a comprehensive account" (Feyerabend as quoted in Friedmann 1978, p. 75).

6.3 Multiplicity of Planning Knowledges

Several authors have contributed to the idea of multiplicity of knowledge, notable among them being, Friedmann (1973, 1978, 1987) and Sandercock (1998, 2003). While John Friedmann promoted the ideas of "mutual learning" between citizens and planners with planners keeping a critical distance away from communities without getting sucked into their day to day problems and issues and losing professional and critical outlook and insight. Leonie Sandercock on the other hand insisted on the inclusion of multiple forms of knowledges in planning decisions and argued that without this inclusion planning would remain "a profession in a state of arrested emotional development" (Sandercock 1998, p. 80; also see Table 6.2).

Both John Friedmann and Leonie Sandercock saw planning as a profession aimed at empowering the vulnerable and disempowered. Both focused on cultural diversity and social learning. Both strived for inclusion of less articulate voices in planning processes. Both wanted planning knowledges to work for the marginalized. Both believed in the active agency of the poor and marginalized, which if included in planning, would be able to make valuable contribution to planning education and the profession. Therefore, they always placed greater emphasis on the multiplicity of planning knowledges rather than the body of planning knowledge that largely relied on scientific rationalism.

6.4 Planning Knowledges in India

A number of articles published in the Environment and Urbanization attest to the existence of various types of knowledge relevant to planning education and planning practice. This work began with the critical work of Appadurai (2001) in the slums of Bombay. Most recent interventions by Sheela Patel and others have been

Table 6.2 Epistemology of multiplicity

Sl. No.	Focus	Form of knowledge	Processes of acquiring knowledge	Role of a planner	Skills of a planner
1	Collaboratively producing knowledge	Knowing through dialogue	Communicative action	Focusing and shaping attention	Talking and listening to other carefully and critically; understanding stories
2	Collective experiential knowledge of people living in an area	Knowing from experience	Sitting down and making conversations in small groups	Helping people to articulate what people already know	Intuitive skills for reading signs, behaviors, and situations
3	Relying on local knowledge of people	Learning from local knowledge	Going to locales and talking with people without prejudice	Dealing with peoples' passions such as faith, greed, fear, anger, etc.	Talking and listening to other carefully and critically; understanding stories
4	Deciphering community messages	Learning to read symbolic and nonverbal evidence	Community organizing and consultations	Treating music, poetry, painting, and theater as sources of knowledge	Reading and communicating through symbols and nonverbal evidence
5	Reflecting on the fact that man and nature are inseparable	Learning through contemplative or appreciative knowledge	Divining, storytelling, walking, singing, etc.	Construction of satisfying and meaningful images of the world	Patience to carefully listen
6	Drawing knowledge from practice	Learning by doing	Indulging in social practice	Enable communities to do things for themselves	Action planning

Source Adapted from Sandercock (1998, pp. 76–83)

effective (2012). What these works point is that production of local knowledges is imperative in order to inform planning policies and the state. While there is recognition of the existence of multiplicities of planning knowledges, planning schools in India remain stubbornly silent about their inclusion in curriculums. This part of the paper highlights some of the important sites where new and different types of knowledges can be produced and I argue that this should be done with a clear intention of reproducing and including the same in planning praxis.

I focus on two forms of knowledge production. One that is produced by independent researchers (who work in the area of planning) and the planning faculty (whose task it is to conduct research in order to produce theory and new knowledge). Second, knowledge produced through everyday practices by communities and only later on codified by community researchers (see Appadurai 2001; Patel et al. 2012).

6.4.1 Knowledge Production by Theory: A Dialectical Movement

Sometimes we are highly concerned about the fact that planning theories coming from the west are not helpful in explicating our concerns. Anaya Roy presents a paradox arguing that "much of the urban growth of the twenty-first century is taking place in the developing world, but many of the theories of how cities function remain rooted in the developed world" (Roy 2005, p. 147). I endorse this idea of producing locally relevant theories capable of explaining our cities and regions. Does this mean that planning theories, a form of knowledge production, should be only produced by local people and not others who happen to be located in the west? This would be an exclusionary and violent act because it would silence a number of voices from deservedly making explicit their "know-how," "know-who," and "know-that." So, I would argue with Ipsita Chatterjee that origin of production of theories really does not matter if a dialectical engagement between theory and practice can be brought about. "I truly believe that good theories are spontaneous conceptual frameworks produced in the moment/spaces-places of analysis, and in another moment/space-place of analysis they are likely to be quite useless unless they are once again spontaneously reproduced and (re)informed" (Chatterjee 2014, p. 8). The point is that we can borrow a theory, as she does apply the Marxian Theory of Exploitation to examine the case of "new urban politics" in Ahmedabad with the intention that the new theory would reinform the Marxian theory. Re-informing has been already happening with the development of subaltern theories developed specifically by Ranajit *Guha, Gayatri Chakravorty* Spivak and Dipesh Chakrabarty. However, in city planning, Ananya Roy and Ipsita Chatterjee have made a start in dialectically engaging with the production of theoretical knowledge relevant to the Indian city. Movement from the west to India and back to west has begun.

In India, planning schools face another problem: they directly apply planning theories produced in the west to explicate contradictions and commensurations in the Indian cities and regions coming out with results which are largely unhelpful. Thirdly, planning theories are seen with great derision in Indian planning schools as devoid of any relevance to planning practice. Fourthly, planning faculty often do not interface with planning practice and do not conduct field research in order to produce new theories or validate existing theories.

6.4.2 Enumerations, Exhibitions, and Festivals

Planning educators in top Indian planning schools and other university colleges would be surprised to see that knowledge useful for planning a city or its certain part, say a slum, can be produced by people who live in informal settlements. Planning knowledge for planning educators is in the first instance buried in books,

which must be unearthed through formal education under the close watch of a fully qualified faculty in a planning school. Second, planning knowledge can be gathered through formal and codified techniques such as various kinds of field surveys with scientific sampling techniques with little scope for error. For rational planners, data obtained through such formal processes once formally analyzed by use of statistical tools and spatial technologies such as GIS and remote sensing by people who claim to be experts becomes useful knowledge that could be trusted for framing planning policies. Here, I want to discuss an illustration to demonstrate that useful knowledge could also be produced without hellish formality and technique.

Located in Mumbai three organizations—The Society for the Promotion of Area Resource Centers, National Slum dwellers Federation, Mahila Milan—although established at different times for different purposes came together to tackle the problems of secure land tenure, adequate and durable housing, and access to basic infrastructure like sanitation, power, transport, etc. These three organizations forged a partnership and called it the Alliance.

The Alliance produced knowledge by adopting three main strategies: self-surveys and enumeration, housing exhibitions, and toilet festivals (Appadurai 2001, p. 34). Self-surveys and enumeration involves majorly three kinds of enumeration including settlement profiles, the household surveys, and vacant land surveys (Patel et al. 2012, pp. 15–17). Information on land occupied by the community, migration history, record of evictions, number of physical structures in the community, access to services, kinds of occupations, and locations of places of employment. Mapping by use of cadastral maps or more recently by use of GPS is also collected to show locations of physical structures and boundary of a community area. Community profiles are prepared by collecting information on all these aspects at community level. There are a number of uses of this knowledge for a community including formation of a sense of identity of a community as a collective, and this information could also be used for future redevelopment projects. The household survey involves collection of information about each household when a community is likely to undertake the task of upgrading and resettlement or there is an imminent threat of displacement. Each house is given a unique number, and the same number is carefully entered into the community register. Information about members of a household is also collected. Family photograph is also pasted in the community register for each household. Status of house occupants, owners, or tenants, is also ascertained and noted in the community register. To become eligible beneficiaries in an upgrading and resettlement project, this information could potentially play a critical role. This information could also become the basis for disputing and challenging exclusionary definitions of eligible beneficiaries of municipal authorities. In cases of disputes persisting even after negotiations, such knowledge could be used in a court of law for the benefit of communities. Vacant land surveys involve identification of vacant parcels of land throughout the city by communities for proper resettlement of people living in informal settlements. This information could help communities to identify appropriate plot of land for resettlement when planning agencies intend to locate the poor on the periphery of a city by citing nonavailability of vacant land nearby as an excuse for displacement

(Patel et al. 2012). Enumeration and self-surveys have been used successfully in Mumbai and various other cities of India apart from several cities in Africa.

Housing exhibitions is another innovation developed by the Alliance. Sunder Burra explains: "Housing Exhibitions are the name given to events organized for large numbers of people from poor communities, local NGOs and government bodies. At these 3 or 4 day events, plenary and group discussions and presentations take place around issues related to housing, land tenure and basic services. Much discussion centres round life-sized model houses that are made using innovative and cheap materials and designs, made by the poor for the poor" (Burra 1999, p. 4). "The housing exhibitions are a way for pavement dwellers to be involved in the design of their houses in accordance with their economic and spatial needs. They are also a way to show city and state officials that the poor can and should play an important role in the production of their habitat and be active participants in the construction and design of the city" (Harris 2009). Housing exhibitions first serve as vehicles for production of knowledge in the form of innovative and affordable house design. Second, these exhibitions could be used as forums for negotiations with government and third they serve as information exchange forums and sites for the spread of innovative ideas by the poor for the poor. Unlike, scientifically produced knowledge, this is a very distinct process of knowledge production.

Sanitation in informal settlements all over India remains the most crucial issue for slum dwellers. Even in cities like Mumbai and Bengaluru, large percent of population lives in slums. The Alliance with local communities produced knowledge to design appropriate toilets for slum dwellers. Community-designed toilet blocks were innovative in the following ways (Burra et al. 2003, pp. 22–25):

- These toilets were fully ventilated and quality of construction was better than municipality constructed toilet block.
- Large water tanks were used to store water for cleaning and maintaining the toilets and toilet complexes.
- Separate entrances for men and women were provided in order enhance privacy and reduce harassment of women.
- Special provisions for toilets for the children was made, which is generally not provided in the municipality constructed toilets
- Monthly passes for use of toilet were issues, which were much cheaper than the daily passes.
- In spite of better quality toilet blocks, these blocks cost 5 % less than toilet blocks constructed by municipalities.

Having seen large-scale success of community toilet blocks in Mumbai and Pune, politicians and policy makers converged on these places to learn how these new knowledges work. These innovations also resulted in role reversals as Burra et al. (2003, p. 30) show: "… there was a fundamental change in roles, as urban poor communities in different cities took part in designing, building and managing their own toilets and then invited the city to come and inspect what they had built. The poor no longer have to beg the city administration for basic services. They own the process, and tell the city how they would like it to progress. Behind this

dramatic transformation are some clear ideas". These ideas are then celebrated by local communities in the form of toilet festivals. There is another aspect of what is called "the politics of shit." Communities here "But they represent another performance of competence and innovation, in which the "politics of shit" is (to mix metaphors) turned on its head, and humiliation and victimization are transformed into exercises in technical initiative and selfdignification" (Appadurai 2001, p. 37). What is evident is the fact that by producing new and relevant knowledges, poor communities have empowered themselves by turning "abjection to subjectivation" (Appadurai 2001, p. 37). This is huge leap forward for local communities, and the Alliance. Needless to underscore that planning faculty and planning students can learn a great deal from these epistemological innovations.

6.5 Conclusions

In this chapter, I have made a beginning by stressing the significance of multiplicity of planning knowledges as opposed to the body of knowledge accepted under the scientific rationalism tradition of planning where the instrumental reason is the most dominant form of knowledge. Drawing on most famous examples of the Alliance of three organizations (The Society for the Promotion of Area Resource Centers, National Slum dwellers Federation, Mahila Milan), I have shown how informal settlement communities in Mumbai and other cities of India like Pune and Bengaluru have been able to produce useful knowledge for themselves for accessing basic services and housing. Second, self-produced knowledge is also employed to negotiate with governments at various levels. Better deals have been secured by communities during upgradation and resettlements of informal settlements. Third, community-produced knowledge, particularly through enumeration to build settlement profiles, is very helpful in framing collective identities of communities.

Surprisingly, planning schools in India are oblivious to these diverse forms of knowledges and politics where communities are successfully able to negotiate with governments to secure access to services, housing, secure land tenure, and several other benefits. Arjun Appadurai has terms this kind of politics as "the politics of accommodation" and "the politics of patience" (Appadurai 2001). Another site of knowledge production is planning theory building. It is common knowledge that western planning theories are generally derided by Indian academicians for their unsuitability for the Indian urban condition. In this chapter, I have argued along with Chatterjee (2014) that it does not really matter from where a theory originated, what matters is how a theory is used in a different context and how this use in turn re-informs the existing theory. There has to be a dialectical movement for theory development. In the end, I propose that planning schools pay closer attention to the multiplicity of knowledges being produced in a number cities and sites in India and ensure careful and critical incorporation of these potentially useful knowledges in planning syllabi.

References

Appadurai, A. (2001). Deep democracy: Urban governmentality and the horizon of politics. *Environment and Urbanization, 13*(2), 23–43.

Bourdieu, P. (1977). *Outline of a theory of practice*. Cambridge: Cambridge University Press.

Burra, S. (1999). *SPARC housing exhibitions*, Working Paper No. 104, SPARC, Mumbai.

Burra, S., Patel, S., & Kerr, T. (2003). Community-designed, built and managed toilet blocks in Indian cities. *Environment and Urbanization*, *15*(2), 11–32.

Chatterjee, I. (2014). *Displacement, revolution, and new urban politics*. Sage, New Delhi: Theories and Case Studies.

Foucault, M. (1972). *The archaeology of knowledge and the discourse on language,* by A. M. Sheridan Smith: Pantheon Books, New York.

Friedmann, J. (1973). *Retracking America: A theory of transactive planning*. New York: Doubleday Anchor.

Friedmann, J. (1978). The epistemology of social practice: A critique of objective knowledge. *Theory and Society, 6*(1), 75–92.

Friedmann, J. (1987). *Planning in the public domain: From knowledge to action*. Princeton, NJ: Princeton University Press.

Gerrans, P. (2005). Tacit knowledge, rule following and Pierre Bourdieu's philosophy of social science. *Anthropological Theory, 5*(1), 53–74.

Harris, M. C. (2009). *Mumbai, India: Pavement-dwellers' movements and their struggle to define citizenship in a city striving to achieve "world-class" status.* Santiago: Habitat International Coalition.

Lemke, J., Lecusay, R., Cole, M., & Michalchik, V. (2015). *Documenting and accessing learning in informal and media-rich environments*. Massachusetts: MIT Press.

Mills, S. (2003). *Michel Foucault*. London: Routledge.

Patel, S., Baptist, C., & D'Cruz, C. (2012). Knowledge is power—informal communities assert their right to city through SDI and community-led enumerations. *Environment and Urbanization, 24*(1), 13–26.

Polanyi, M. (1962). *Personal knowledge: Towards a post critical philosophy*. London: Routledge and Kegan.

Polanyi, M. (1966). *The Tacit Dimension*. Chicago: University of Chicago Press.

Pritchard, D. (2006). *What is this thing called knowledge?* New York: Routledge.

Roy, A. (2005). Urban informality: Toward an epistemology of planning. *Journal of the American Planning Association, 71*(2), 147–158.

Sandercock, L. (1998). *Towards cosmopolis: Planning for multicultural cities*. New York: John Wiley and Sons.

Sandercock, L. (2003). *Cosmopolis II: Mongrel cities of the 21st century*. London: Continuum.

Chapter 7
Imparting Inclusive Education to the Next Generation of Planners Through Participatory Learning: A Case of the Global Studio Bhopal

Krishna Kumar Dhote and Preeti Onkar Singh

Abstract This chapter is developed on the experiences of an international planning and design studio, which aimed at educating the young upcoming professionals in the field of architecture and planning. The focus of the chapter is placed on understanding the process of inclusivity in the context of participatory learning. It presents processes and outcomes, seeks to engage with the diverse local community experiences and viewpoints of the authors and to constructively theorize implications for rethinking educational practices for inclusive urbanization.

Keywords Participatory learning · Inclusive planning · Global studio · Public spaces · Planning pedagogy

7.1 Introduction

Urbanization is a phenomenon leading our cities and hinterlands to reach their desired quality of life and it should not be only seen in the context to urban population and growth of urban centres. The trend towards an urbanizing world is at its peak. This shift towards an urban world is being driven primarily by urbanization in the global south (Beall and Fox 2007). Planners in India also seek to squarely face the challenges of urbanization, among other things, by producing better planners.

So when we—as students, faculty, policy makers and development practitioners—ask ourselves what kind of world we want to live in from 10 to 20 years from now, we must also ask ourselves what kind of cities we want to live in. If we want to live in a more peaceful, more equitable and more environmentally stable world, we must

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consider the ways in which urban centres and urban lifestyles contribute to achieving these objectives. In other words, if we want to live in a sustainable and inclusive world, one in which diversity is embraced and opportunities for development are shared by all, then we must make a commitment to promoting development of sustainable and inclusive cities (Beall and Fox 2007).

Based on the experiences of an international design and planning studio, this chapter aims to present processes of educating the young and upcoming professionals in the fields of planning and architecture. This chapter focuses on understanding the processes of inclusivity in the context of participatory learning. It presents processes and outcomes, seeks to engage with diverse experiences and viewpoints of authors and to constructively theorize implications for rethinking educational practices for inclusive urbanization.

7.2 Urbanization of the Country

India needs to work on several areas to manage its urbanization. The following are perhaps the most important: inclusive cities, urban governance, urban funding, planning, capacity building and low-income housing. In order to handle these problems, India needs to start a political process whereby urban issues are debated for evolving meaningful solutions. India is on track to witness an unprecedented pace and scale of urbanization. As per India's Twelfth Five Year Plan, an important aspect of urban planning should be involvement of communities with an overriding objective of making cities engines of inclusive growth. Participatory planning should be a pre-requisite for any endeavour for urban renewal.

Given the increasing importance of India's cities, it is critical for the nation to promote and facilitate the development of inclusive and sustainable cities. These cities will not only become the engines of the country's economic growth, but they will also be home to about 600 million people by 2031. India must swiftly move towards an integrated planning approach based on the smart growth principles (Planning Commission 2011). A planning process should integrate both top–down and bottom–up plans developed through participatory structures and processes. Involvement of people in a planning process has obvious advantages of ensuring ownership of development efforts on one hand and ensuring the optimal use of scarce resources. This raises the issue of need for an inclusive approach towards planning and development of cities (Planning Commission 2012).

Global development experience shows that the speed of urbanization is most rapid when countries are at low income levels. It also shows that the pace and pattern of urbanization is similar for early and later developers. It indicates that all nations have an urban hierarchy of metropolises, cities, and towns, and no country has grown to riches without a shift of population from villages to urban settlements (http://www.theindiaeconomyreview.org/Article.aspx?aid=37&mid=3).

In a global context, the scale of India's urbanization will be immense. India will have 68 cities with population of more than 1 million, 13 cities with more than

4 million people and 6 megacities with populations of 10 million or more amongst which two cities will be among the five largest cities in the world by 2030. There are a number of challenges for inclusive urban planning in India today. Like poor delivery of basic services, housing shortages, differences between informal and formal sector, transport access for the poor and most important is the need to build real local capacity. Even when there is a scheme in place, local governance structures and local officers are not able to implement them. Nor are officers in charge of planning skilled in urban planning let alone inclusive planning. Without inclusive planning, megacities such as Mumbai and Delhi are likely to become increasingly polarized with increased disparities in wealth, housing, transportation and access to opportunities (McKenzie Global Institute 2010).

Urbanization has posed some of the most serious challenges such as poverty in the form of slums, poor transport access, minimum or no basic services, lost heritage and character of the city in the run of globalization and exclusion of disadvantaged sections of the society like urban poor, informal sector, women, children and the disabled.

7.3 Inclusion as a Policy and a Need

This is prime time to explore how inclusive approach can lead to better urban planning solutions. Solutions provided by professionals need grooming gradually and we can say planning education needs a reorientation imparting inclusivity in the process of development of planning professionals.

Inclusive education has evolved from a movement associated with the struggle against exclusion of learners with disabilities and others categorized as 'having special needs' to one which challenges all exclusionary policies and practices in education (Hannu 2000). The term inclusion is defined by different authors in different contexts. This chapter sees inclusion in planning perspective as a technique for better planning of cities, regions and towns and villages through participatory learning. The idea that more inclusive approaches can emerge out of internal school dynamics and that it is possible to intervene in these dynamics opens up new possibilities for national policy. However, commercialization of education is expanding around the world (Ainscow et al. 2006).

Urban planning was traditionally seen as a means to control and regulate development of towns and cities. In cities of the developing world, however, traditional planning approaches have failed to address the challenges of rapid urbanization and poverty, exclusion, informality and vulnerability it brings in its wake (UN-Habitat 2007).

Inclusion as an approach forces us to rethink integration

- A shift towards inclusion involves respecting a wider set of values, and sometimes choices as to emphasis among them. What do we value most?

- Which of these values are universal and which are relative to culture or context? How can the values of local communities be taken into account?
- What are the practical steps to be taken in developing more inclusive systems?

The planners and policymakers in India have been underscoring higher economic growth as an outcome as well as a prime-mover of development policies. However, while discussing economic growth both as an instrument and outcome, the question that inherently arises is whether economic growth has actually been pro-poor and inclusive in nature (World Education Forum 2000).

7.4 Planning Perspective and Planning Process

Planning for developing countries and development planning has been a popular aspect of planning education discussions for several decades. On one hand, there are doubts whether developing nations should follow western planning doctrines based on the experience of project failures or acknowledge increasing intellectual independence. On the other hand, there is a rejection of the stark differentiation of planning education curricula. Increasingly interdependent economies have led some educators to propose that a universal global planning education is what is needed in the future (Frank 2006).

Introductory statement to a series of essays on the future of planning and planning education for the twenty-first century suggests that planning is a generic, vitally important process in modern society and a degree that focuses solely on comprehensive planning as a substantive process is missing (Frank 2006). Instead of selecting one paradigm for planning, the author suggests that multitudes of paradigms that characterize the profession are its strength. Future planning education should reflect this by means of specialization in subject matter like land use, economic development, or environmental planning, roles and processes educating students to be service agents, rational analysts, creative visionaries or social change agents.

In planning practice in the United States, cities with sustainability programs generally include participatory processes and this is internationally accepted that these process are necessary for sustainability (Baxamusa 2008).

7.4.1 Planning Pedagogy

A shift in planning education away from physical design to more knowledge-based activities supporting the rational planning model in the 1970s and 1980s, and then later to advocacy and activist planning, led to a more theoretical, academic, research-oriented, and scientifically rigorous approach to planning education (Frank 2006). The pedagogical approaches mentioned include workshops and studios, role

play and simulations and multimedia and online learning as skills and methods identified in planning education research.

7.4.2 How System Resonates with Societal Framework

Societal framework includes a complete interdependent hierarchy of society from rich to poor, and from formal to informal sector. This social interdependence is a part of the process of development at different stages. Government framework does not resonate with society's framework as it does not address hierarchy at all possible stages and sectors. The rich are totally dependent on the poor and vice versa; similarly, the formal organized sector is dependent on labour coming from unorganized informal sector. Thus society framework is sustainable as it is a cyclic process of give and take while many planning proposals are not inclusive of society's framework because of which differences and disparities lead to vulnerabilities and destabilization in the society.

If city planners better understand these sectors, they can for example plan transport, housing, financial resources, basic services and improved quality of life all around. This in turn relates to the need to improve attitudes towards inclusive urban planning on all levels. The poor need to be part of the planning process. The issue of urbanization—how to make India's towns, cities, and metropolises work for a more inclusive development—is one of the most important policy issues confronting the nation today. What are the core elements of an efficient and inclusive urbanization strategy? How will a planning approach that takes into account specific needs of various social groups and is focussed on participation, transparency and accountability.

7.4.3 Role of Urban Educators and Professionals

Planning educators play an important part for the development of planning profession. New planners and planning students need to be engaged in the current stream for better understanding and development of approaches towards providing solutions. An attempt has been made by the authors to practically educate inclusive planning process through inclusive education as a tool and participatory planning as a method to implement design and planning options. *Global Studio Bhopal* was a part of series of international planning and design studios that attempted through design, planning and research modes to engage with communities in order to ensure that we worked with communities, albeit over a very short period of time, and have been included them and heard their voices. Some groups have attempted to bring about improvements in peoples' lives through working with local NGOs.

The projects demonstrate the ways in which emerging and established urban professionals can begin to create knowledge that is significant, and can also transfer

the tools of education to less-advantaged communities. Learning new ways of designing, planning and researching has been a feature of the Global Studio Bhopal; thus helping build capacity of all stakeholders including communities who participated. Not all efforts have been successful, but there have been many useful lessons learnt, and seeds sown through the Global Studio 2012.

7.5 Inclusivity and Participatory Processes: The Global Studio Bhopal

Role of communities in urban policy has been an area of contention since the early 1970s. During that time, community involvement was championed by some as the primary means of developing effective democratic involvement in the construction of local strategies and programs, while others have portrayed communities as bastions of local vested interests. Community participation is about involving people with common goals and interests and enabling them to take collective decisions. Participation is the mandatory development syntax of this approach (Khosla 2015).

7.5.1 Participatory Planning in the Global Studio 2012

Here participatory planning implies learning by doing, knowing, interacting and participating is critical. There is a paradigm shift taking place in India that began with central government programme called JNNURM and the 73rd and 74th constitutional amendment acts, which included a provision for public participation. JNNURM was launched in 2005 to develop infrastructure in cities to capitalize on the idea of cities as engines of economic growth. As a concept, public participation has gathered force with the Slum Free City initiative also. RAY signals a new shift from top-down to bottom up approach to planning to one that engages people as partners in development. It is of course much easier to say that people should be part of the process than to make it happen. It would appear that effective participation still requires some major shifts at various levels, including government, professionals, education and practice as well as the establishment of channels for communities to participate effectively. In this background, the studio projects were developed focussing on inclusive approaches for creating context-based planning and design solutions.

Studio 1: Housing: Inclusive Planning for and with the Urban Poor
Problem: Research, consult and propose designs for a slum area with an inclusive and participatory planning approach.

Studio 2: Inclusive City Centre: Revitalizing the Past
Problem: Research, consult and propose the 'knitting together' of the old city with the new city to benefit the people of Bhopal and visitors to the city.

Studio 3: School Plus: Inclusivity and Education through Community Engagement
Problem: Research, consult and propose along with community and NGO an education and community project.

7.5.2 Studio 1: Housing: Inclusive Planning for and with the Urban Poor

The Housing Studio takes its departure from the current policy initiative under the Rajiv Awas Yojana or RAY, a flagship program for providing housing and basic services to the urban poor. The studio investigated current practices of poverty alleviation as realized in a recent housing project for the Madrasi Colony slum, which provided new G+3 residential dwellings on the site to the former slum dwellers. In contradiction to the development approach applied at Madrasi Colony, the studio went on to investigate alternative, scaled up and participatory design methods as propagated by RAY to improve a notified slum in the *Kabadkhana* area in the northern part of Bhopal. In this studio, our intent is to understand the existing neighbourhood as an intricate material, spatial and social fabric, and to provide case study approaches and solutions to build upon the existing qualities of the place in order to improve living conditions of the urban poor.

Three major case study areas were identified and worked on, namely the existing open and public spaces in and around the public middle school to rethink the potential of open spaces to strengthen community and public life; the nallah along the northern border of our study site to rethink water management and how it relates to the material flows within the neighbourhood; and lastly an exemplary street section connecting the nallah or city drain and open public spaces to investigate the domestic reality of the neighbourhood.

Our investigations and design proposals were developed under the preposition that it is preferable to work with and build upon the existing materiality and built fabric of the neighbourhood rather than to erase and build afresh. A wide range of proposals serve to illustrate possible material solutions as well as processes applied to build upon qualities of any particular slum site. RAY acknowledges a scaled approach from basic services to in-fill improvements and to entirely new housing developments. Based upon our design research, propositions for new housing schemes were developed, and suggestions for material standards on larger scale housing development were given.

At first the students visited Madrasi colony and tried to understand what a rehabilitation project for a slum is like? What has government done for the slum

dwellers? They collected information about their lifestyles, socio-economic status, physical and environmental status along with current services provided to them. They also went to Kabadkhana, one of the notified slums of Bhopal, to understand what a slum is and how do the people live there? The students conducted a survey in Kabadkhana because learnings were not done by them in Madrasi colony before JNNURM project intervention. Hence, it was necessary to understand the slum, and the communities living in the slum for assessing their needs and also for ascertaining main issues.

Here we learnt, what are the actual needs of the community in terms of living together and working together. Based on our understanding and learning and issues generated from the analyses of the rehabilitation project like Madrasi colony, we again went to Madrasi colony and tried to check issues with regard to not only physical but the social aspects. Hence, we tried to redesign the housing clusters with our perceptions applying certain concepts like incremental housing. We also gave proposals for the Kabadkhana to improve their lifestyles by giving proposals and identifying major issues like garbage disposal, drinking water, nallah redevelopment and making children aware of how they can solve their small problems with the help of materials available around them.

It is important to respect needs and preferences of end users. The importance given to the end users should be akin to the importance given by successful customer-oriented businesses to their customer needs and preferences. End user acceptance should be the deciding factor for the success or failure of a program. Methodology for public participation has to be exhaustive. Quantitative methods used by large business houses to understand their customers for designing well-targeted products can be adopted in the social research context for educating future planners.

7.5.3 Studio 2: The Inclusive City Centre

In order to handle this studio, we adopted the strategy of research, consult and propose the 'knitting together' of the old city with the new city to benefit the people of Bhopal and visitors to the city. The project brief aimed to achieve an inclusive city centre after identifying major needs and deficiencies. Research was undertaken to comprehend international, national, state and city contexts with regular site visits of new and old city. Given the rich heritage and history of the place, insights into the lifestyles of communities were underscored. Appropriate approaches to community consultations were adopted including quantitative and qualitative inputs and analysis. Existence of diverse ethnic and social groups made it mandatory to reach out to different strata of society. Studies of local businesses and informal economies were also undertaken through observations, discussions, surveys and workshops.

'A Living Heritage' part of the studio included an introductory heritage walk through the old city, field observations were also carried out during the studio, and interviews were also conducted regarding the importance of the old city in

reflecting traditional ways of living, modifying the micro-climate to make it comfortable and for collecting and storing water. The principle public open spaces of *Iqbal Maidan* and *Pari Ghat* were monitored and users of the space were interviewed to assess how and when these spaces were used, how often and also to discover where people came from to use these spaces and whether they felt that it was difficult or unsafe to get there. Children were asked where they played. A physical survey of the walking paths along the edges of the Upper Lake was done to identify character, accessibility from neighbouring areas and any disconnect in the network that made it difficult for people to access and use them. Vehicular and transport movements were monitored at key locations and at different times of the day to assess the number of vehicles using main roads going into the old city and load this placed on the old city as well as its impact on pedestrian movement and safety. The following three themes were identified for further research and action, engaging many stakeholders and their aspirations:

- A Living Heritage—Appreciation of architectural and cultural heritage.
- A People Friendly City—Appreciation of people, scale, design and planning.
- A Community Voice—Lack of community participation in government decision making identified to promoting ideas by people and communities.

The historic city centre has a wealth of architectural and cultural heritage. However, only a few historic buildings and sites are listed as heritage buildings and thus protected. The identification of individual buildings rather than historic precincts fails to recognize the importance of context and character of heritage and its significance for the city as a whole and its potential as a destination for heritage tourism. Public open spaces in the old city are extremely limited. Iqbal Maidan is the key open space in the old city and is used by children for playing cricket as there are no other play spaces in the old city. Parks adjacent to the Upper Lake are very popular with the public, particularly in the mornings and evenings. Access to the public spaces nearly always involves crossing very busy and unsafe roads. Heavy traffic in the historic city has an extremely negative impact on pedestrian safety in the old city and on the quality of experience in the old city. Public bus routes travel into and through the old city from the north, south and east. *Magics*, small private mini buses, supplement these services. State government BRTS designed to provide rapid transit into the city requires wide corridors to accommodate dedicated bus lanes as well as other vehicular traffic. The streets in the old city are very narrow and cannot accommodate the BRTS and other vehicular traffic without significant road widening.

To understand the above issues and the community perspective about the old city, a survey was carried out with pedestrians and vehicular traffic, residents and visitors, young and old, men, women and children of all age groups at Moti Masjid, Peer Gate, Iqbal Maidan, Sadar Manzil, VIP Road and Kamla Park. People were asked questions on their daily route of travel, reasons of commuting and frequency. Most people travelled within the old city on foot or by their two wheelers. They travelled at least once a day mainly for the purpose of work and study and to shop. A huge group of people travelled to the VIP Road and Kamla Park area

during the day for a stroll or to get their kids to play. Swamps of boys flowed into Iqbal Maidan after their school ended at around 3 pm and played cricket, hockey and football. In Sadar Manzil, traffic flows from the new city as it houses the Municipal Office and the Public Welfare Development Office for the city. The chief difficulties faced by people were traffic congestion followed by problems of crossing roads and the safety issues.

The citizens were angered by the increase in dug-up manholes along the roads causing increase in accidents, and the footpaths occupied by street vendors forcing them to walk on roads. Many of the people interviewed were frustrated with the lack of traffic sense among the citizens, and one of them said: 'There is no traffic sense and people take pedestrians for granted'. The public was also questioned on what they liked and disliked about certain spaces like Iqbal Maidan, VIP Road, Kamla Park, Pari Ghat, Moti Masjid, etc. along the nodal points. They primarily liked the VIP Road and the Kamla Park as it was along the lake front, and was close to nature giving cool breeze all through the day. Iqbal Maidan and Moti Masjid were also liked by people due to their close proximity to the lake.

The heritage structures are highly respected by the citizens of old Bhopal and they see the need of conserving their heritage. Whereas some people also feel that the degraded condition of the heritage structures brought shame to the area and if they cannot be saved then they should be brought down and modern structures should be built. All the respondents felt a sense of belongingness and attachment to these areas.

Street vendors found these public spaces as places of profit as the entire city uses these routes either by foot or by using their vehicles daily. They load their carts at the old bus stand wholesale market every morning and fix their carts along the road each day. The commuter's when coming from work or going about their daily strolls by the lake are their target customers where on peak days they tend to make a profit of about Rs. 500–1,000 daily. Hawkers along the roads are the major cause of traffic congestion but also the lifeline of traditional mobile fruits and vegetable market in the city. Visitors and those who tread along the VIP Road daily dislike the lack of cleanliness in the lake which is due to unchecked solid waste and toxic disposal as well as washing of clothes, and domestic chores by the slum dwellers and beggars along the lower lake.

Residents of Fatehgarh area near the Pari Ghat complain about the lack of playgrounds and gardens for their children. One of the children from the area pulled on one of our colleague's hand and pointed at one green patch now turned into a garbage dump and said: 'I want my playground there'. That is when we took up the initiative of a festival at Pari Ghat which grew to become 'We are Bhopal' project. This brought us further to the basic question, 'what do you love about your city'? The answer: most Bhopalis love the Lake front, and they enjoy their evening strolls by the lake and boating on the weekends. They like visiting natural spaces and heritage structures rather than the new city or the mall. Most people are homely and love their surroundings around their homes, they enjoy the watching the kids play at Iqbal Maidan and love the non-stop activity in the city. They are fond of the

liveliness that the city brings to their lives with the taste of their culture and traditions.

Emphasis was placed on a 'people friendly city'. Introducing and improving community spaces and open areas for leisure and recreation were sought. Increasing accessibility and mobility of and between the old and new city and lakefronts were sought. An event named 'We are Bhopal' and the site Pari Ghat was chosen to bridge all three research themes with an eye at initiating larger action.

Each of these attempts were informed by utilizing a participatory approach, keeping in mind Bhopal's co-existence of rich and diverse socio-cultural, political and economic history. Our key goals were to link the old and new city through means which encourage safer travel routes for pedestrians, revitalization of open spaces, and preservation of the historic precincts, all of which included feedback from communities that utilized these spaces. We also understood the need for an economically viable city centre which linked to growth areas in the new city from our research and analysis. We concluded that there is disconnect between local communities and their understanding of the city-wide development projects such as the BRTS. Surveys indicated that people were not informed about the possible demolition of buildings for the development of BRTS or final routes. People appeared to have limited knowledge and access to information about projects such as the BRTS. People showed a desire to be involved in the development and design processes of their city, but many felt that they did not have adequate means to voice concerns.

From our test run of a 'Community Consultation Centre' at the 'We Are Bhopal' festival, we found that people were very receptive and were able to comment on plans of our planning and design proposals. Women, men and children were all taking part in the process by adding comments, and creating their own visions of spaces in Bhopal. Implementation of Community Consultation Framework in Bhopal would be beneficial for both local residents as well as local and national government and development organizations. By increasing the amount of interactions between city-level development proposals and local residents provides conducive environment for feedback from residents for approval of development and planning proposals. It is important for residents to be able to voice their opinions about the status and changes of their city and how such projects will affect their lives.

7.5.4 Studio 3: The School Plus Project

Studio 3 involved the School Plus project and this is an inclusive design approach to site and infrastructure improvement at the Prempura Government School with the benefit of Prempura residents in mind. Prempura Government School project was identified through *Muskan*, a local NGO focused on educational development for children in India. Prempura is a settlement of around 3,000 people which was previously a village, and is now located within the municipal corporation limits.

This urban village has an existing government primary school, which also provides lunch to children. Residents work in agricultural activities as day labourers in the nearby national park also called Van Vihar, and in building construction. Women work as gardeners and as maids in nearby colonies. There is a nursery adjacent to the village which supplies plants to Bhopal. Prempura is home to a number of retired civil servants, Nepalese immigrants and people from various tribal areas. Educational needs of the children are served by three schools within the village, and two schools located outside the village.

Fairly soon into the process got underway, we discovered the true underlying complexity of the village. As a result our information gathering was a continuous process of obtaining information and got verified through further discussions. We spoke with the children, women, youth and men of the community. Methods of gathering information varied according to which group we interacted with. For example, the women responded well to an inclusive group meeting situation, an open-circle discussion where they felt comfortable coming and going and felt like their voices were being heard. In comparison, our approach for engaging with the youth was very much an informal, a friendly discussion. The children of the school responded extremely well to the hands-on activities we had with them. The main activity was a series of worksheets we devised, prompting them to reveal to us different aspects of their lives. We were interested in their daily habits, health and hygiene, their hopes and dreams for their school, and what they enjoy doing outside the school and in everyday life. Discussions with men were very informal when they were sitting in their recreational spaces.

The focus of Global Studio Bhopal 2012 is to improve living conditions in impoverished communities through sustainable and inclusive urbanization by means of participatory planning and design methods. The primary task in the process was to develop a feasible design program with which we could develop short-, medium- and long-term goals. To come up with a viable inclusive planning and design program, it was necessary to meet a large and varied group of stake-holders. In addition to meeting with members of Muskan and the school Principal, we met with the children, women, youth and men of Prempura. Through a series of interviews, casual discussions, group meetings and hands-on activities, we came to better understand the needs and wants of Prempura. Through this process our team recognized that for the viability of the School Plus Project, we need to implement proposals by engaging with the community, by securing funds to get the proposals started and by linking up with NGOs to ensure the long-term viability of each proposal.

Implementation of our short-term goals resulted in a 3-day community event. The programme involved educational workshops, practical projects and children's games and activities. The intention of the event was to unite the disjointed groups of Prempura and to bring together different religious, social, gender and age groups. Participation and contribution would hopefully create a feeling of ownership and pride, which in turn would sustain the proposed work.

Children helped make invitations, decorated the school and cleaned up the site. The projects completed include tree planting, mural painting and the construction of

a playground. All events were successful activities that gathered and involved a good representation of the village. Our goal was to design and develop improvements to school and school grounds to benefit the students and Prempura as a whole. Further steps include securing funds for further preparation of an area plan and continue to establish partnerships with NGOs to ensure sustained benefits to the village.

Our plans and designs were influenced by feedback resulting from discussions and observations with the community of Prempura. Our final solutions came about through community workshops, awareness programs with the children, tree planting, working with municipal officers and consulting with local engineers and architects from Bhopal. We established a budget for our proposals and sought sponsorships and partnerships with NGOs.

7.6 Concluding Remarks

Successful inclusive planning and design projects support our unique physical, social, cultural and economic needs with clear philosophies, strategies and tactics. From the outset, these projects aim for inclusiveness in all phases. They push the boundaries for creativity and innovation, energizing and regenerating a community. They result in functional, high-quality and aesthetically pleasing environments that manage impacts and add value to cities, providing residents with opportunities and choices to thrive and reach their full potential. The criteria that can help us systematically analyze how well environments incorporate ecological principles, and how people are affected by and can shape development projects. The process of learning and understanding was carried out by actively involving the students with communities. Apart from the traditional technique of survey based approach, it was also pursued through organizing events, playing games with children and engaging people to participate and present their opinions. Small activities like planting trees, collecting garbage, self-made design models and awareness plays keeping in mind the targeted group. The approaches also include walking through the city to understand the city in its cultural context.

This complete process of learning and problem solving activity was based on understanding the context and beneficiaries, their functional needs, affording ability and applicability of solution with desired impacts. As urban planners, the context sensitivity is an important consideration for any inclusive planning approach. The critical thinking about real sources of a problem and potential solutions is participatory, involving the entire community in hands-on planning and leveraging resources with equitable impacts. The process of planning involves a structured hierarchy from plan formulation to policy guidelines to project formulation including beneficiary identification and lastly plan implementation. Therefore, it is suggested that planning education should reorient the upcoming professionals to understand communities, government bodies and legislations using technical expertise which should be multi-disciplinary and should be able to generate

solutions which are inclusive. In this regard, the responsibility lies with technical institutions and apex bodies like Institute of Town Planners, India in making professionals or planners who can vision at the global scale and produce localized solutions. This approach of participatory learning will lead to value creation of assets through our own understanding.

References

Ainscow, M., Booth, T., & Dyson, A. (2006). Inclusion and the standards agenda: Negotiating policy pressures in England. *International Journal of Inclusive Education, 10*(4), 295–308.

Baxamusa, M. H. (2008). The Third E: Equity as a condition of sustainability. *Projections: MIT Journal of Planning*, *8*, 17–25.

Beall, J., & Fox, S. (2007). *Urban poverty and development in the 21st Century*. Oxfam, London: Towards an Inclusive and Sustainable World.

Frank, A. I. (2006). Three decades of thought on planning education. *Journal of Planning Literature, 21*(1), 14–63.

Hannu, S. (2000). *Making inclusive education*. Helsinki: Department for International Development Cooperation.

Khosla, R. (2015). Community participation for inclusive urbanization: Moving from tokenism to Genuine Participation. In K. K. Shrestha, H. R. Ojha, P. McManus, A. Rubbo, & K. K. Dhote (Eds.), *Inclusive urbanization: Rethinking policy, practice, and research in the age of climate change*. New York: Routledge.

McKenzie Global Institute. (2010). *India's urban awakening: Building inclusive cities, sustaining economic growth*. Mumbai: McKenzie Global Institute.

Planning Commission. (2011). *Report of the steering committee on urbanization*. New Delhi: Twelfth Five Year Plan, Planning Commission.

Planning Commission. (2012). *Report on challenges of urbanisation*. New Delhi: Twelfth Five Year Plan, Planning Commission.

UN-Habitat. (2007). *Inclusive and sustainable urban development planning* (Vol. 1). Nairobi: UN-Habitat.

World Education Forum. (2000). *Meeting special/Diverse educational needs: Making inclusive education a reality*. Dakar: World Education Forum.

Chapter 8
Need for a Shift in Pedagogy for Teaching Fundamentals of Planning Education

Natraj Kranthi and A.L. Valliappan

Abstract In general, the field of physical planning is multidisciplinary in nature, and is concerned with planning of land use, environment, infrastructure, transport networks, housing, etc., to meet the present and future needs of the people. One of the biggest challenges is teaching the basics to the students and thus orienting them toward a multidisciplinary and dynamic field. In most institutes offering planning education in India, the fundamentals are taught through studios on graphics and presentation techniques. However, the basic curriculum of studios is most frequently oriented towards and influenced by the field of architecture rather than physical planning. Due to this historical deviance, very often the students find it difficult to relate knowledge gained in the first semester studio to the subsequent studios where planning content dominates. This chapter proposes a relook at the pedagogy adopted for teaching the fundamentals of physical planning education. For this purpose, the authors discuss the most frequently adopted methods of teaching in the first planning studio highlighting their merits and demerits. Authors also share their own pedagogical experimentation in teaching this studio. After a comprehensive review and analysis of various teaching approaches, including learning from experimentation where they emphasize a need for a major shift in pedagogy for the first semester planning studio in order to reorient the students toward the field of planning.

Keywords Planning pedagogy · Studio curriculum · Architecture and design · Studio methodology · Theory and studio integration

The views expressed in this paper do not reflect the views of the institute to which these authors are associated with.

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8.1 Introduction

In professional planning education, the studios are considered to be the core for "learning by doing," as they involve practical projects with workshop style and tutorial-based learning. In the first planning studio of the undergraduate course, usually introductory knowledge and course fundamentals are taught. It is considered to be a place that enables the transition of the students into academia and an introduction to planning education (Bosman et al. 2012). The first year studio facilitates a major change in the overall perception of the students toward planning education and learning. They learn a new language different from what they learnt before (Bhonsle 2014). In this particular sense, the first year of planning education becomes the most important part of planning education in a planning school.

The studio projects help in stimulating the enthusiasm and channeling the energies of the students into positive learning. A few studios focus on teaching the drawing and graphic design, which are fundamental to problem solving and the planning process. Problem-based learning is experiential as there is no one single path to problem solving. Therefore, usually planning studios are based on contemporary planning issues and concerns (Bosman et al. 2012). A strong base in the first studio can help orient the students better toward the discipline of planning and later as a professional engaged in the practice of planning. Conversely, lack of strong relevant base can often under stress salient features of the planning discipline.

This chapter attempts a relook at the pedagogy adopted for teaching the fundamentals of planning education. For this purpose, the authors discuss the most frequently adopted methods of teaching in the first planning studio highlighting merits and demerits. Authors also share their own pedagogical experimentation in teaching this studio. After a comprehensive review and analysis of various teaching approaches, including learnings from experimentation, the authors emphasize a need for a major shift in pedagogy for the first year planning studio in order to reorient the students toward the field of planning.

8.2 First Studio Curriculum

In general, the curriculum of the first studio is designed to equip students with basic and necessary skills to carryout planning projects in the subsequent years during the course. It includes problem-based learning; project-based assignments; and other multiple modes or approaches that facilitate active teaching and learning (Higgins et al. 2009). Course curriculum is one of the key guiding factors for the provision of required knowledge base to the students. Therefore, this prompts the need to understand the first studio in planning curriculum and its relevance in planning education and profession.

As per the Institute of Town Planners, India (2013) recognized a list of planning courses and schools in India. Bachelors or undergraduate degree in planning is offered by five government institutes. Among them three central-level institutes, i.e., School of Planning and Architecture: SPA New Delhi, SPA Bhopal, and SPA Vijayawada, and two state-level institutes Jawaharlal Nehru Architecture and Fine Arts University and Guru Ramdas School of Planning, Guru Nanak Dev University offer this course (ITPI 2013). Along with undergraduate planning courses, these institutes also offer degree courses in architecture. This cohabitation could perhaps be one of the reasons for a substantial similarity in the syllabus of planning and architecture in the first year studios.

The curricula of the above-mentioned institutes largely follow the framework of the Model Curriculum for Undergraduate Programme—Bachelor's Degree in Planning prescribed by All India Council for Technical Education (2008). The broad structure of this model curriculum for the first year planning studio or lab includes introduction to drawing equipment and mediums; use of points, lines, and polygons; concepts of scales and proportions; perspective drawings; and appreciation and presentation (All India Council for Technical Education 2008). However, the curriculum does not specify the scale at which exercises have to be carried out. Also for conducting the studio, there is no specific reference to either building or site level. This curriculum provides a base dealing with general concepts of drawing and not very specific to planning education.

The most common feedback received from the faculty teaching the first planning studio across various institutes revealed that this studio in a majority of institutes is not treated to be as important as the studios of the subsequent semesters. Not surprisingly the teaching pedagogy of the first semester is oriented more toward and influenced by the field of architecture. Usually, architectural basics are taught to the students of planning. This can be corroborated from the fact that these basics often include the following architecture related contents: basic forms of buildings including the three-dimensional views and projections of buildings, anthropometrics and furniture layout of room, measured drawing exercises including the architectural building drawings, concepts of scales and proportions of different objects and rooms, and model making of building blocks. However in the subsequent semesters, the studios focus more on core planning related aspects such as base map preparation, area appreciation, neighborhood planning, and urban and regional planning. Therefore, apparently there is a visible gap in the syllabus contents of the first and subsequent studios. This establishes that the curriculum prevailing in the existing planning institutes needs major changes in pedagogy for teaching physical planning education new planning students.

To understand learning difficulties and other related concerns of the students, a survey was conducted across the institutes. At least four students of Bachelor of Planning degree course from each institute were chosen to record their responses relating to the first semester studio. A summary of the feedback and analysis is presented below where a majority of the students expressed the following concerns:

- Exercises assigned in the first planning studio were more architectural in nature and therefore learnings were of not much relevance for undertaking further studio exercises in planning.
- The students were uncertain about the application of the learnings.
- Most often only the basics of drawing such as line, planes, etc. were taught with no practical application.
- Necessary exposure to the site through visits, field studies, etc. was not provided, which was a clear deterrent in the overall understanding of space and its related aspects such as scale, proportion, etc.

The above concerns reinforce the need for a major shift in teaching the first planning studio.

8.3 Pedagogical Experimentation

A pedagogical experimentation was carried out to address the issues relating to the prevailing approaches in teaching the first planning studio. This studio was conducted during the year 2014 at SPA Vijayawada. The broad objective of the studio was to orient students to physical planning. It was aimed at providing exposure to various types of land use activities specially focused on streets.

The curriculum contents were limited to the basic drawing and graphic presentation skills. However, an attempt was also made to teach the contents through a project on mapping. Contrary to the conventional pedagogy of teaching two-dimensional aspects of space first and then followed by three-dimensional aspects, a deliberate reverse approach was adopted (see Fig. 8.1).

Three-dimensional aspects were introduced to the students first so that they could appreciate the volume and other related vertical attributes of space. The underlying philosophy was to enable the students to relate two-dimensional drawings to the real space. It was also our intention that the students are able to make connections between volumes, planes, and points. This was done with the help of physical models, demonstrating how three-dimensional objects can be represented as planes, planes as lines, and lines as points (Fig. 8.2).

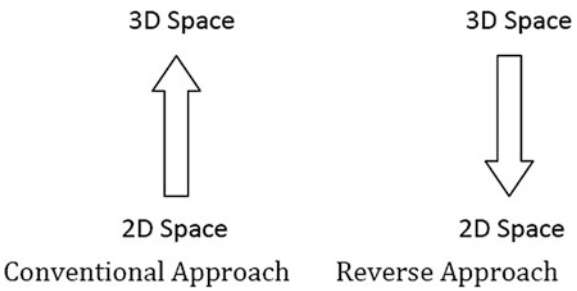

Fig. 8.1 From three-dimensional to two-dimensional learning

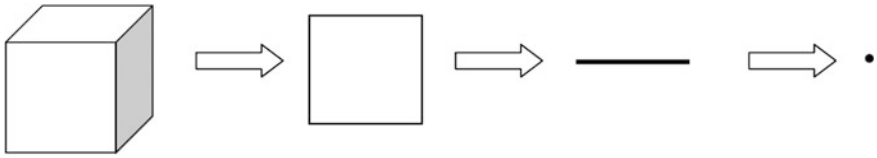

Fig. 8.2 From planes to lines to points

The contents of the syllabus such as usage of lines, points, polygons, shapes, forms, scale, proportion, etc. were taught with the help of an exercise on street mapping in a selected area of the city of Vijayawada, Andhra Pradesh. This was initially carried out in groups and later individually. The entire class was divided into eight groups consisting of three students in each group. Eight streets of not more than half a kilometer stretch were identified based on their predominant street activities. Each of the groups was assigned with one street. The studio methodology comprising of six steps is outlined below:

Stage-I: Information—Necessary information such as satellite imagery, and maps from secondary sources, etc. were collated. The identified streets were located on the imagery.
Stage-II: Reconnaissance Survey—This stage included a site visit, audio visual documentation, and sketching in order to relate identified streets on the ground and to understand the nature of street activities. In this stage, the concepts of scale and proportions were taught through onsite freehand sketches and photographs of street views. Besides, sketches of the internal views of the street based on the photographs were made. These sketches were linked to satellite images relating to street activities (Fig. 8.3).
Stage-III: Physical Model—Physical block models were made to appreciate scale based on the imagery, photographs and sketches. Real ground features such as buildings, trees, etc. were translated into three-dimensional geometric forms (Fig. 8.4).

Fig. 8.3 The street view reconnaissance survey

Fig. 8.4 Physical model translated into three-dimensional geometric forms

Fig. 8.5 Three-dimensional views and rendering

Stage-IV: Three-Dimensional Views and Rendering—Based on physical models, three-dimensional views such as axonometric, isometric, and perspective views including rendering techniques were taught to the students (Fig. 8.5).
Stage-V: Area Appreciation—This phase focused on enabling students to understand both the horizontal and vertical spaces; mass-void relation i.e. buildings and open spaces; and land use activities and reconfirmation of the model. Besides, audio visual documentation was also done.
Stage-VI: Mapping—Base maps of streets were prepared based on the high-resolution satellite images, and audiovisual documentation and other related information was collected from the field surveys. Land use activities were mapped based on the already collected street activity information. As a part of this exercise, different land use coding and coloring was also taught (Fig. 8.6).

To ensure the quality of work and to understand the learning difficulties of the students, each of the stages was carefully supervised through continuous and progressive assessments, including one-to-one interactions, group discussions, presentations, exhibitions, and studio workshops. Besides, the students were simultaneously taught drawing skills to complete their exercises (Fig. 8.7).

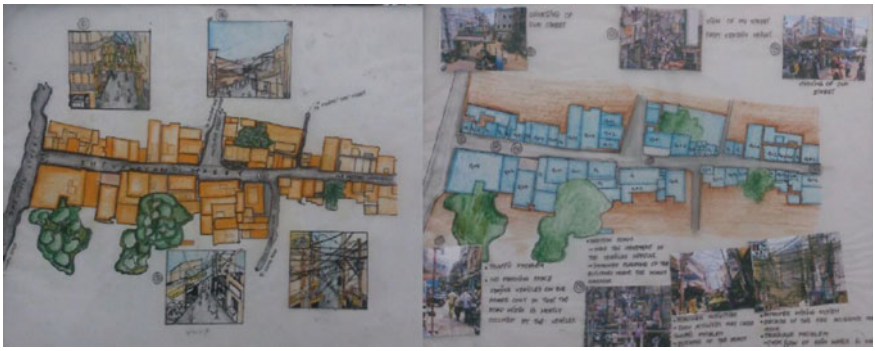

Fig. 8.6 Making base maps of streets

Fig. 8.7 The students learning drawing skills

8.4 Conclusions

There is an urgent need to treat the first planning studio as one of the most important steps towards building multidisciplinary education in planning. Constant and continuous innovations in the pedagogical approaches are also required. The institutes offering planning courses should encourage new paradigms so as to keep pace with the rapidly changing planning education. The emphasis must be placed on ensuring a strong base and thus enabling the students to orient and relate to the discipline in a better way. The curriculum of the studio should be designed to cater to the needs of the profession and the industry. In designing the studio curriculum, necessary precautions must be taken to avoid any strong influences from the allied disciplines. Planning faculty through the first studio curriculum should ensure that the students learn the new language of planning. For this, one of the important steps that should be taken is to achieve vertical integration of syllabus, i.e., with the studios in the higher semesters and a horizontal integration, i.e., with the theory subjects offered in the same semester.

References

All India Council for Technical Education. (2008). *Model curriculum for undergraduate programme—Bachelor's Degree in planning*. Delhi: All India Council for Technical Education.

Bhonsle, K. D. (2014). A*cademia.edu.* Retrieved October 9, 2014 from http://www.academia.edu/7294028/INTRODUCINGACTIVELEARNINGINBASICDESIGN.

Bosman, C., Dedekorkut, A., & Dredge, D. (2012). The first year experience in higher education and planning studio pedagogies: An Australian case study. *CEBE Transactions, 9*(1), 3–19.

Higgins, M., Aitken-rose, E., & Dixon, J. (2009). The pedagogy of the planning studio: A view from down under. *Journal for Education in the Built Environment, 4*(1), 8–30.

ITPI. (2013). *itpi.org*. Retrieved October 10, 2014 from http://itpi.org.in/files/ListofrecognisedschollsorinstitutionsuptoApril2013.pdf.

Chapter 9
Spreading Planning Knowledge in General Education

H.S. Champa and Gayathri Viswanathan

Abstract Urban Planning in India is slowly but steadily gaining pace. In the past 40 years, there has been more than 350 % of increment in urban population in India. Urban planning impacts societies on a number of fronts: housing requirements for all social segments of the existing and migrant population, economic activities of people, social harmony and cohesion, sustained economic development of cities, and environmental concerns. In this essence, planning plays a significant role in contributing to peoples' overall quality of life. Formal education in planning plays a major role for the betterment of the society in terms of physical form, which in turn reflects on the society. A scientific way of understanding and learning about settlements has been developed from the prehistoric times till today. This chapter throws light on these aspects. Learning from the past along with the new trends, planning theories, policy making, and future demand equip learners and citizens to take up challenges and come up with appropriate solutions.

Keywords Planning knowledge · Planning and school children · University-community linkages · Community participation · Retraining of planners

9.1 Introduction

Planning is an activity that concerns itself with proposals for the future, with the evaluation of alternative proposals, and with methods by which these processes may be achieved. Planning is a rational adaptive thought applied to the future and to matters over which the planners or the administrative organizations with which they are associated have some degree of control (Simon et al. 1950). In general, the word

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planning means looking ahead, making choices, and deciding about future actions wherever possible for attaining objectives. Conyers (1984) has pointed out that 'although planning is inevitably concerned with the future, this does not prevent planners from devoting a great deal of attention to the studies of the past and present situations. In fact, the studies of the present are essential in order to provide information about the existing conditions and the needs and the resources currently available for development.'

About 60 % of population in India falls between the age of 15–60, which only indicates that the future of India is in the hand of young majority population. This population needs to be channelized so that the future of India could be planned in an effective manner. To facilitate awareness of planning with a special stress on physical planning, different strategies need to be charted out. Planning increases efficiency of work and makes optimal utilization of all obtainable resources. This chapter discusses not only the need for formal education in planning but also educating people of different sectors who are fully or partially involved in decision-making or executing works related to land-use planning.

9.2 Importance of History for Planning Education

Education about the history of the Indus Valley Civilization shows distinct characteristics of planning from the remains of the cities of Harappa and Mohenjo-Daro being the earliest examples of planned cities. Grid pattern layouts, hierarchy of streets, public and residential zoning, and provision of infrastructure in terms of drainage systems were few of the characteristics of these planned cities. Learning from the history needs to be coupled with the new formulas to suit today's requirements and future demands. It is through education that these layers of information could be unearthed for the future learners and the general public.

Planning is future oriented and 'seeks to connect forms of knowledge with forms of action' (Friedmann 1987). Planning is top-down approach as well as bottom-up approach. Planning makes provision for arrangements such as land use, transport, infrastructure for judicious allocation, and utilization of resources. Urban planning is an interdisciplinary profession. Planning means prethinking and prearranging things before an event takes place so as to achieve good result in terms of health, convenience, comfort, and happiness. Planning provides an essential framework for guiding and controlling development and also provides a vision for the area; categorizes main objectives to realize that vision; defines the local context of people and places; and sets out design policy framework. It considers the importance of urban design in both influencing and helping to deliver the objectives shaped in the plan. The decision taken in the master plan must be executed to fulfil promises made in the plan about required development in a phased wise manner.

9.3 Widening Planning Education

In the present, context planning is seen as a tool for system maintenance and when related to the future context, it is seen planning as a tool for system transformation. Therefore, planning is seen as a tool for gradual system change. For all these reasons, planning needs to be implemented at all levels so that its effectiveness is realized in every sector. The following are few ways of spreading the knowledge of planning through education:

- A specialized course in the form of Bachelor of Planning and Master of Planning.
- Planning as compulsory subjects for college and university students graduating in economics, sociology, anthropology, etc., in undergraduate and postgraduate courses.
- City planning as a subject should be introduced at high school level because a large percent of these students will live and work in the city, but will not go to the university for higher education due to high drop-out rates in India.
- Training programmes for city managers, policy makers, advisors, researchers, private sector operators, support institutions, and others who are involved at planning.
- Community education through university-community linkages.

9.3.1 Bachelor and Master's Courses in Planning

Bachelors and Master courses in planning are designed to train young students to resolve problems, issues, requirements, and demands when planning for human settlements and also to engineer and manage changes at the same time. Theories and techniques of planning from regional level to neighborhood level are taught to get a grasp of planning ideas, approaches and technologies. The students also learn to understand the relations between built and unbuilt in the local context comprising of micro environments, utilities and transport networks, and infrastructure. The graduates after completing these courses as planners are expected to have acquired tools for rational comprehensive planning along with participatory and social development skills. Communication skills have nowadays become equally important for planners.

9.3.2 Planning Education in the Sister Disciplines

Few planning related theory subjects need to be introduced in all undergraduate courses stress importance of physical planning. In the disciplines of civil

engineering, architecture, and geography, it is already done. But this could be extended to the subjects of anthropology, economics, sociology, political science, history, etc. This will help in spreading the knowledge of planning to graduates passing with degrees from related discipline. Even though each might take different streams of expertise, planning helps each in obtaining different perspectives. At a higher level, the course should also aim at providing city managers, policy makers, advisors, researchers, private sector operators, and support institutions with useful insights and better understanding of approaches to planning, designing, and maintenance.

9.3.3 City Planning as a Subject at High School Level

Planning as a subject should be introduced at high school level. As such 75 % population completes education only up to high school level. So the awareness of planning needs to be targeted at that age group also. These youth directly or indirectly will be responsible for city growth. Along with theory inputs, the students should be exposed to different modes of understanding the city. Through urban investigations, the students can explore fundamental questions about how the city works using collaborative research and design. During investigation simple techniques could be used like framing questions as to where does our water come from, and where garbage is taken for treatment, etc. To find answers, the students should engage themselves in field work; interview concerned people like policy makers, stakeholders, and end users. The field work will give them some insight into the working of a city or neighborhood where such studies will be carried out. Findings and suggested remedies will be put forth by the students using effective presentation tools before decision makers. This in turn will further educate large number of people who are engaged directly or indirectly in city development (see http://welcometocup.org/Projects/UrbanInvestigations). By participating in urban investigations, the school students will

- Develop skills for research.
- Understand the importance of decision-making.
- Take active role as a citizen in the city formation.
- Learn effective communication skills.
- Develop understanding about resource utilization.

Through these activities the students are trained to see beyond their specified school curriculum. These urban investigations could be very interesting and effective if carried out properly by trained teachers with some planning background. This becomes a learning platform for youngsters who will surely become better citizens with these additional inputs in the form of planning knowledge.

9.3.4 Short-Term Training Courses in Planning

Usually planning is a team work involving planners, civil engineers, architects, landscape architects, sociologists, geographers, geologists, ecologists, administrators, legal advisers, economists where planners chiefly do the coordination work along with planning for efficient location of land uses, infrastructure and development of settlements across a larger region. So short-term training courses needs to be made available to this target group of officers and engineers working in municipalities, development authorities, government departments and organizations, persons working in development projects in public or private sector, academicians, consultants, research organizations as well as self employed practitioners engaged in planning, and design, NGOs, science and engineering graduates and postgraduates. Training could be designed for the basic understanding of planning up to the latest theories and techniques. Keeping abreast with the latest developments in planning will help these people in making better decisions pertaining to city planning.

9.3.5 Community Participation and University Linkages

The actors weigh in differently in planning cities and regions (Healey 1992; Innes 1998). Among the participants are urban planners in their varied roles: as experts applying technical rationality in problem-solving and plan-making and as facilitators in public meetings or mediators in resolving disputes (Banai 2013a, b). Their leadership influences others citizens, policy makers, and politicians and their constituents and promotes innovative ideas and technologies for sustainable practices.

Buildings represented as building masses are to be designed by architects. Ground spaces between buildings and also vacant lands are to be planned by planners even at a micro level of detail. This approach is defined as the creation of shape and scale of spaces, including future building that are then designed by architects. Contents of structure may include street layout, landscape architecture, open space, water channels, and other details. The structure may contain zoning, building codes and quality guidelines. Public participation is an essential principle in this process. It concerns with ensuring that all people are equally represented in planning processes. A plurality of public interests is assumed and the role of planner is essentially the one as a facilitator and implementer of planning proposals.

Physical solutions by themselves will not solve social and economic problems, but neither can economic vitality, community stability, and environmental health be sustained without a coherent and supportive physical framework (Richardson 1998). Restructuring of public policy and development practices should support the following principles: neighborhoods should be diverse in use and population; communities should be designed for the pedestrian and transit as well as the car; cities and towns should be shaped by physically defined and universally accessible public

spaces and community institutions; urban places should be framed by architecture and landscape design that celebrate local history, climate, ecology, and building practices. The commitment is to reestablish the relationship between the art of building and the making of communities through citizen-based participatory planning and design. Planning represents a broad-based citizenry composed of public and private sector leaders, community activists, and multidisciplinary professionals.

9.3.6 Systems Thinking and Community Education

If the local is connected to the global and urban sustainability is assumed inherently a multi-scale activity, then it follows that urban sustainability education is most effective if systems, or holistic, thinking is practiced in the classroom or in the community (Banai 2013a, b). Local action is viewed in the context of the global, and conversely, the global is viewed in a local context. Systems thinking argues Ackoff (1979) is 'synthetic' and it promotes an understanding from the larger to the smaller system. Systems thinking is particularly helpful in understanding the metropolitan region—the larger urban system—with a spatial structure that determines its interdependent smaller subsystems—the city, the neighborhood, and even a building site.

The idea that education or communal learning is a part of the practice of regional planning is emphasized early in the writings of regionalists like Mumford (1938). If the metropolitan region as a whole is difficult to sense, it is still possible to think holistically about the interconnections like transportation-land use-air quality that renders the region sustainable even when not experienced everywhere or observed directly. When distinguished geographer David Harvey (1997) regularly asks his students about where their daily breakfast comes from, he is engaging them in a kind of holistic thinking that raises awareness of the whole sustainability question from the place where food ingredients are grown to the spaces of production, marketing, distribution, and consumption, even when the individual experience of each place or space is limited. Urban sustainability education is enhanced by advanced communication technologies. Learning outcomes reflect systems thinking, given the interdependence of the urban system as an ecologic whole with long-term worldviews of environmental sustainability. Effective communication among actors facilitates management of common resources. Finally, efficiency in resource allocation and consumption is to be compared with environmental justice. Educating for planning includes public participation, but the complexity of development terminology can discourage even committed community advocates.

Community education is not the only barrier to meaningful participation in land-use decisions, but it is one of the biggest one. Methods and techniques used to educate a community should be simple and attractive without any technical information. Community members should be encouraged to participate during discussions and come up with solutions collectively. The effectiveness of decisions taken by the end users will be for better and also acceptance levels will be high.

More community members participate effectively the better, and experts get more responses, which in turn reduces protests from the general public against any kind of development. Advocates, policy makers, community board members, developers, and others can use these tools as a centerpiece for workshops and conversations that describe and clarify problems and proposes to communicate solutions. Toolkits need to be visual, tactile, and interactive. Each tool translates abstract concepts and language into straightforward activities and physical objects that let people learn by looking, doing, and listening to each other. Participants teach themselves and others as they use these tools. Concepts and jargons turn out to be less complicated than they seem when explained by planners in plain language. Techniques and effectiveness of communication needs to be stressed upon for better results.

Emphasis on actors as individuals and groups is not limited to any particular society. At each scale—the building, the site, the neighborhood, the city, the region, and the globe—individuals, organizations, and governments weigh in differently as actors in environmental management. Best practices include those that represent local actions and that are responsive to global environmental challenges.

9.4 Conclusions

Planning in other words is a vision about the future. The various techniques, methods and policies required to implement any development project should be developed in concurrence with the end user's involvement so that projects become more effective after implementation. Short-term training and long-term education strategies help city development to meet the requirement of today and for the future. It needs to be a participatory involvement of all the citizens rather than just execution of a project by few stakeholders. Proper utilization of land and other resources to cater to the requirements of transportation, infrastructure, housing, etc. through strategic planning is possible only through understanding and educating oneself about communities that are subjected to planning. It is evident that planning education helps in an overall development of society in general along with added benefits toward improved economy, and sociocultural aspects.

References

Ackoff, R. L. (1979). The Future of Operational Research is Past, *The Journal of the Operational Research Society*, *30*(2), 93–104.

Banai, R. (2013a). The metropolitan region: From concepts to indicators of urban sustainability. *Journal of Urbanism: International Research on Placemaking and Urban Sustainability, 6*(1), 1–23.

Banai, R. (2013b). Cities and regions: The urban sustainability. *Planning, Pedagogy, and Technology Nexus, The Journal of Sustainability Education, 5*, 1–13.

Conyers, D., & Hills, P. (1984). *Introduction to Development Planning in the Third World*, Wiley, Chichester.
Friedmann, J. (1987). *Planning in the Public Domain: From knowledge to action*. Princeton: Princeton University Press.
Harvey, D. (1997). The New Urbanism and the Communitarian Trap, *Harvard Design Magazine*, pp. 68–69.
Healey, P. (1992). Planning through debate: The communicative turn in planning theory. *Town Planning Review, 63*(2), 143–162.
Innes, J. (1998). Information in Communicative Planning. *Journal of the American Planning Association*, *64*(1), 52–63.
Mumford, L. (1938). *The culture of cities*. New York: Harcourt Brace.
Richardson, T. (1998). *The Pendulum Swings Again: In Search of New Transport Rationalities*, DETR, London.
Simon, H. A., et al. (1950). *Public administration*. Knopf, New York.

Websites

www.cnu.org
www.iitb.ac.in
www.worldwatch.org
www.brooklynartscouncil.org
http://en.wikipedia.org/wiki/Urban_planning_education
http://welcometocup.org/Projects/UrbanInvestigations
http://www.planningni.gov.uk/

Chapter 10
Integrating Planning Knowledges: A Case of HUDCO

T.G. Girish Karnad

Abstract In this chapter, an overview of HUDCO activities has been attempted to know how it is integrating various aspects of planning knowledge for the development, especially of the Karnataka state. The chapter also seeks to analyze the existing gaps in planning knowledges and offers suggestions for improving planning education and urbanization policy regarding better planned and improved habitats.

Keywords Integrating knowledges · Housing finance · Housing schemes · Benchmarking · Smart city

10.1 Introduction

Town planning is a science as well as an art. Here, science consists in collecting, correlating, and analyzing the facts in a town. The art lies in arranging the components in such a way that the final result emerges in the form of beautiful, convenient, economical, and efficient units.

According to Lewis Keeble, a renowned urban planner, it can be defined as "The art and science of ordering land uses and situating the building and communication routes so as to secure the maximum level of economy, convenience and beauty (Keeble 1964)."

Urbanization encourages economic development. Cities are the engines of economic growth. Over 90 % of the world's urban population growth will take place in developing countries. Being a developing nation India is contributing significant shares in this growth.

Urban population in India is 31 % of the total and it contributes over 60 % of GDP. It is projected that urban India contributes nearly 75 % of the national GDP in the next 15 years. Global Experience suggests that urbanization will be bit slow till

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it reaches 30 % and after 30 % it will be more rapid till it reaches 60–65 % or, the 30 % level is critical in urban growth.

Indian Census 2011 reveals that there are 7936 towns besides 640 districts and 641,000 villages. Town and country planning organization (TCPO) statistics reveals that out of these towns, only 1233 have prepared master plan and in another 657, preparation of master plan work is in progress. This indicates that only less than 25 % of the cities or towns have master plans.

As the country is witnessing more urbanization in the recent past, after globalisation market forces have tended to determine city growth and development, better understanding and better coordination of urban planning are most important. In this context, the present article an integration of the planning knowledge in practical context as cites sought to be institutionally addressed. Based on the gaps identified, it offers suggestions for better planning for a better future.

10.2 Housing and Urban Development Corporation Limited

Housing and Urban Development Corporation Ltd (HUDCO), India's premier techno-financing company, was set up in 1970 by the government of India to accelerate the pace of housing and urban development in the country. With a pan-India presence, HUDCO has emerged as a major player in the area of housing and urban infrastructure finance over the last four decades offering a wide range of financing options and related services. In its formative years the company had remained primarily focused on the housing sector. Subsequently, with the opening up of the urban infrastructure financing window in 1989, the company made rapid progress and deeply and materially influenced the urban sector with its diversified activities across many subsectors and allied sectors besides catering to the housing sector. Apart from the financing operations, HUDCO offers, consultancy services promotes research and studies and help propagate the use of local building material and innovative construction technologies.

HUDCO is a unique institution with its abiding goal as "Profitability with social justice." A public sector company, under the Ministry of Housing and Urban Poverty Alleviation (MoHUPA), and at present Ministry of Urban Development (MoUD) and MoHUPA, HUDCO has been a key institution with the government in building assets for the nation. In its operations, HUDCO lays high emphasis on the housing needs of the poor and takes care of the financing gaps in the utility infrastructure sector. Its main thrust has been on meeting the housing needs of the "deprived," i.e., the economically weaker sections (EWS) and Low—income groups (LIGs). In times of crises like earthquakes, cyclones, floods, tsunami, etc, HUDCO has extensively contributed in the rehabilitation of the calamity effected households, through its technical and financial help for housing reconstruction.

HUDCO believes that every Indian should live a secured and dignified dwelling. Every initiative of the company is aimed at making the urbanization process smoother, creating better living environments and thus building inclusive cities. Its initiatives are always in line with that of the government's in creating living space for the poor and ending habitat poverty in the country.

10.2.1 HUDCO Schemes

Housing urban, rural and staff rental, housing through private builders and HUDCO Niwas Urban Development: land acquisition (LA), integrated LA and development, utility, social, economic, and commercial Infrastructure. Now Infrastructure in emerging sector also. Building Technology: Promotion and building of centers for technology transfer and to support building material industries.

In addition to the above, HUDCO also offers consultancy in architecture, urban design, land scope, urban and regional planning, transportation planning, interior design, and infrastructure development. HUDCO also trains in human settlements technology and offers technical assistance for all the above projects for project formulation and implementation.

HUDCO was established with an equity base of Rs. 2 crore. Over the years, the equity base has been augmented by the government. The present authorized capital base of HUDCO is Rs. 2500 crores and paid up Capital is Rs. 2001.90 crores. HUDCO has created reserves of Rs. 4512.06 and net worth of HUDCO is Rs. 6513.96 crores. Over the years HUDCO has further been able to mobilize resource from Institutions like LIC, GIC, banking sector, refinance from NHB, international assistance (KFW, JBIC, ADB, USAID, etc.) and market borrowings through debentures, taxable and tax free bonds as well as through public deposits, taking the overall borrowings to Rs. 18867.43 crores, the cumulative resource base of HUDCO is Rs. 25381.39 crores (as on 30.09.2013).

Housing and urban development programs with all their inherent complexities cannot be effectively implemented without sound professional backup. HUDCO realized that its financing programs would succeed only if the various aspects of planning, use of construction materials, use of appropriate technologies as well as sociological aspects were collated and studied and reviewed on a continuing basis. In line with this, the HUDCO approach has been to widen and diversity of professional inputs for shelter and infrastructure projects and at all stages of project trajectory. HUDCO draws on professional skills available in house as well as elsewhere in the country.

HUDCO is a close knit organization with its headquarters at Delhi. For more than a decade, till 1983, it had functioned from its head office only. With a view to ensure speedy services in all the regions, HUDCO has decentralized its activities. HUDCO soon spread its wing to develop a closer and stronger rapport with the agencies concerned in various states and to identify new ones in different regions. Today, in addition to the corporate office at Delhi, 1 zonal office (North East), 21

regional offices and 10 development offices are functioning covering the entire country.

The total human resource strength of HUDCO is 957. Out of this around 72 % are executives with multi-disciplinary professional background of finance, law, architecture, civil and public health engineering, urban and regional planning, environmental and transport specialization, community development, information technology, economics, real estate development, human resource, public relations, etc. Being civil engineers and urban planners, to appraise the project formulate, implement and monitor toward the successful completion of the project our role is very vital and diversifying in HUDCO.

HUDCO's performance can be summarized as 'profitability with social justice". HUDCO has been continuously managing its operations efficiently and making profits which are ploughed back as reserves for diversifying capital and for increased operations. HUDCO since its inception and up to the end of August 2014 has sanctioned 16,761 projects worth Rs. 503,520 crore in which HUDCO's loan commitment is Rs. 140,482 crores, out of which Rs. 95,868 crores, has already been released. HUDCO assistance so far would facilitate in taking up of about 1.65 crore residential units, over 7.2 lakh developed plots 66.86 lakh sanitation units, 1911 urban infrastructure projects, and 665 building centers. The total cumulative housing loan sanctioned is Rs. 46,650 crores and loan released is 31,566 crores. The total cumulative UI loan sanctioned is Rs. 88,701 crores and loan released is Rs. 59,948 crores (www.hudco.org).

HUDCO's contribution in its 44 years of existence though modest, is very significant. It has reached people in over 1856 towns and hundreds of villages across the length and breadth of the country. The number of its borrowing agencies is increasing and has reached a high of over 2111 from a mere 12 in the beginning.

10.2.2 Housing

HUDCO's significant emphasis laid on housing for weaker sections in its operations. HUDCO has always designed its products that would remain well within the affordability bracket and repaying capacity of the beneficiaries. Considering the income bracket HUDCO has evolved a unique system of cost ceiling and loan ceiling for EWS and LIG category linked with affordability.

The differential interest policy has been adopted for various categories with overriding emphasis on concessional rate of interest for EWS and LIG families, higher proportion of the unit cost is provided as loan and longer repayment period is provided to lessen the repayment installment burden. Over 95 % of housing units supported and built pertains to the economically weaker sections (EWS) and lower income group (LIG) projects. This would make the HUDCO the largest facilitator of housing for the weaker sections.

10.2.3 Urban Infrastructure

HUDCO opened its exclusive urban infrastructure window in 1989–90, with a view to channelize funds to the urban infrastructure in cities and towns. HUDCO lending covers a wide variety of infrastructure projects. A special emphasis is laid on utility infrastructure covering water supply, sewerage, drainage, solid waste management, etc., which affect the day-to-day life of the citizen at large and thus their quality of life.

In addition social infrastructure constitutes an important component of its operations that include health, education, and recreational infrastructure. Further, economic and commercial infrastructure operations covers highways, commercial, and market complexes, etc; in addition under emerging sector category, projects covering IT parks, ICE components, special industrial projects, etc. are considered.

HUDCO's contribution has indeed helped in improving the quality of life of the citizens to a considerable extent, making the cities improved regarding the utility social and economic or commercial infrastructure,and thus, enhancing their livability.

10.2.4 Disaster Mitigation Initiatives

HUDCO has always extended its helping hand in times of crisis due to natural calamities like earth quakes, landslides, cyclones, flooding, sea erosion, tsunami etc. in various parts of the country. These natural calamities, substantial damages and often total destruction to property and asset, rendering large numbers of families homeless. HUDCO has contributed technically as well as through its financial support for the rehabilitation and resettlement of the affected families. HUDCO has so far extended its support in various forms in Bhopal gas tragedy, earthquake at Uttarkashi, Latur, Jabalpur, Chamoli, Gujarat, Jammu and Kashmir and Sikkim, tsunami in Tamil Nadu and recent cloudburst at Leh, Jammu and Kashmir. HUDCO so far has disbursed earthquake and land slide loan amount of Rs. 197.45 crores with 1,31,047 houses, Cyclone assistance with loan amount of Rs. 1054.17 crores with 4,37,934 number of houses and flooding and sea erosion with loan assistance of Rs. 957.74 crores with 35,75,734 houses (www.hudco.org).

10.2.5 HUDCO Niwas

An individual housing loan was launched in 1998; it offers most competitive interest rates with broad-based user-friendly options and value-added service as part of its operations. Bulk loans are provided to state governments, parastatal

institutions of the state governments and for profit making PSUs, for giving house building advance to their employees.

10.2.6 Consultancy Activities

HUDCO has expanded its consultancy services to cover a wide variety of architectural, planning, and engineering fields such as housing designs, development plans, master plans, plan for heritage cities, city development plans (CDPs), feasibility studies, detailed project reports (DPRs), etc.

10.2.7 Government of India Action Plan Schemes

HUDCO has been implementing the government's social programmes known as "Government of India Action Plan Schemes" such as the Two million Housing Program (2MHP), Night Shelters, JNNURM (IHSDP and BSUP), Rajiv Rinn Yojana (RRY), Swarna Jayanthi Shahari Rozgar Yojana (SJSRY) (for capacity building activities under IEC component), and Rajiv Awas Yojana (RAY). In JNNURM so far HUDCO prepared 60 DPR's, appraised 1239 projects covering 870 cities/towns across India and monitoring the project. In RAY 8 slum free city plans prepared and 83 DPR's were appraised.

10.2.8 Building Center Movement

HUDCO launched the building center program in 1988–89 and gave grant assistance for setting up the building center throughout the country one in each district and so far established 655 building center across the country (both urban and Rural). In order to promote local technologies and skill up-gradation of the local un-employed youth, where there is a shortage of construction activities at grass root level and for cost reduction in construction, promotion of cost-effective building materials and innovative construction technologies, HUDCO through these building centers have trained more than 3 lakh artisans in use of various cost effective building material and technologies and played a vital role in awareness creation, disaster mitigation, and reconstruction activity during natural calamities.

The government agencies like the MoHUPA, MoUD, Planning Commission, and other agencies draw upon HUDCO's expertise relating to urban sector to frame policies and prepare document that provide policy inputs for evolving new programmes and projects in the housing and urban development sector. Some of them are Working Group on estimation housing shortage, national urban housing and

habitat policy, affordable housing policies, carrying out various norms for cost, and loan ceiling and income ceiling for EWS, LIG, MIG, and HIG categories.

10.2.9 Human Settlement Management Institute (HSMI)

Established in 1985, the human Settlement Management institute is the training arm of HUDCO. HSMI incorporates four thematic centers on urban poverty, slums and livelihood, sustainable habitat, project management and development and affordable housing. So far HSMI has conducted over 1581 programs and 43,034 professionals trained. HSMI established the HUDCO Chair in 18 institutes of National Importance, conducts research and development activities in 24 institutes. HSMI is also networking at the international level with the CITYNET Seoul, Institute for Housing and Urban Development Studies, Rotterdam, the Netherlands, etc.

10.2.10 New Schemes

Rent to Own Scheme: An innovative scheme for Government employees, such as constables, bus drivers conductors. The scheme would enable the employees to own a house over time, through the support of their organization.

HUDCO Nav Nagar Yojana (HuNNY): An integrated solution from planning to financing for new township/layout development.

10.2.11 Recent Initiatives of HUDCO

Micro Finance for Housing: To ensure financial inclusion of the poor and self-employed women in slums and informal settlements through formal lending mechanism, HUDCO joins hands with SEWA through equity investment of Rs. 1.8 Crores (15 %) in new housing finance company.

Partnering Delhi–Mumbai Industrial Corridor: HUDCO has subscribed 19.9 % (Rs. 19.9 Crores) of the equity capital of Delhi Mumbai Industrial Development Corporation (DMICDC). Another objective is to assist the state governments along the Delhi–Mumbai infrastructure corridor by financing land acquisition, new township development, and other infrastructure corridor.

Rajiv Rinn Yojana: HUDCO is the central nodal agency for this scheme which has provision of extending interest subsidy of 5 % to EWS and LIG category of people for loan up to Rs. 5 lakhs.

HUDCO Design Awards: It encourages architects, town planners, and engineers; HUDCO Design Award give recognition to engineers to encourage innovative ideas that make cities inclusive, beautiful, and environmentally sustainable.

HUDCO Best practice Award: HUDCO is awarding to its borrowing agencies, institutions and other stake holders for adopting best practice in various fields to improve the living habitat.

10.3 Hudco Bangalore Regional Office (BRO)

HUDCO Bangalore Regional Office (BRO) was established in 1983 as a regional office with jurisdiction for the entire south India, later slowly offices for each south Indian state have been established with a separate regional office. Since its inception BRO has sanctioned total of 1450 number of schemes, with a project cost of Rs. 70,460 crores with the loan amount of Rs. 18700.73 crores. The total loan released is Rs. 11,061 crores. The total number of dwelling units assisted including the plots is 28 lakhs and 1.89 lakh sanitation units have been assisted. The total amount of loan sanctioned for housing is Rs. 8245.04 crores and loan assisted for infrastructure is Rs. 10455.73 crores.

The total loan assisted category wise are EWS(U) Rs. 1606.62 crores, EWS(R) Rs. 2409.36 crores totaling Rs. 1814.77 crores, LIG(U) is Rs. 674.78 crores and LIG (R) is Rs. 20.05 crores others Rs. 3534.23 crores. The total assistance is Rs. 8245.04 crores. The total number of EWS units assisted is 23.24 lakhs (Urban 4.96 lakhs and rural 18.55 lakhs, LIG 3.72 lakhs (urban 3.52 and rural 0.2) and others 0.62 lakhs.

The total amount for urban infrastructure project assisted is Rs. 10,455.73 crores covering 173 schemes and the sectoral brake up are as follows, i.e., for water supply Rs. 716.93 crores, sewerage/drainage Rs. 240.81 crores, transport/nagar terminals Rs. 5,477.88 crores including Bangalore Metro Rs. 1200 crores, Area Development Schemes Rs. 423.35 crores, Social Infrastructure schemes Rs. 548.38 crores and Commercial Infrastructure schemes Rs. 3048.58 crores. HUDCO assisted various water supply augmentation schemes through Karnataka Urban Water Supply and Drainage Board (KUWS&DB) for the various different towns of Karnataka such as Chikmagalur, KR Nagar, Haveri, Jamakhandi, Shikaripura, Kamalapura, Holenarasipur, Basavakalyana, Mangalore, Mandya, Hubli-Dharwad, Gulbarga, Chitradurga, Bellary, Shivamogga, Tipatur, etc.

10.3.1 HUDCO and Karnataka State Development

The glimpses of various different projects funded by HUDCO BRO are as follows:

Urban and Rural Ashraya Schemes, Matsya Ashraya Schemes, Basava Vasathi Schemes across the Karnataka State. The subsidy amount initially was Rs. 20,000 to now at present Rs. 1,20,000.

For slum rehabilitation an amount of Rs. 129 crores with 2.96 lakh units has been assisted, in Vambay loan amount of Rs. 90 crores and government of India

subsidy amount of Rs. 90 crores has been assisted with 33,282 units, the total number of toilets assisted is 7910 number.

The staff rental housing assisted is Rs. 176 crores with 9333 number of units. Rehabilitation and resettlement scheme for project displaced families at Alamatti, Bagalkote and the loan amount assisted already is Rs. 648 crores with 97,913 numbers of units. Apart from this financial year HUDCO has sanctioned loan amount of Rs. 1687 crores has been sanctioned for Rehabilitation and Resettlement (R&R) Schemes.

HUDCO BRO between the years 1998–99 and 2003–04 sanctioned 184 schemes with loan assistance of Rs. 2506 crores fewer than 2 Million housing programme with 1,645,429 houses to different state government agencies, such as KHB, KSCB, RGRHCL, KBJNL, KLAC, and KFDC.

HUDCO also gave Rs. 100 crores assistances for the government for the improvement of infrastructure in urban local bodies across the Karnataka state for improving various infrastructure services such as water supply, drainage, roads etc.

In the bridges and roads across the states of Karnataka, the project cost is Rs. 419 crores and HUDCO assistance of Rs. 135 crores for the total 153 bridges and HUDCO also assisted for the state highway maintenance with the project cost of Rs. 205 crores and loan amount of Rs. 180 crores.

In the urban infrastructure category, for the water supply schemes an amount of loan of Rs. 982 crores across the Karnataka state for 112 towns have been assisted, for the sanitation loan amount of Rs. 32 crores for 1.78 lakh toilet units have been covered.

For the energy sector an amount of loan of Rs. 689 crores assisted for Karnataka Power Transmission (KPTCL) toward energy savings, an amount of loan of Rs. 108 crores with the project cost of Rs. 158 crores have been assisted for the waste to energy projects for establishment of co-generation plant at Manndya, Mudhol, and Chikkodi.

For the information technology sector, an amount of Rs. 14 crores with the project cost of Rs. 20 crores for the establishment of information technology park at Hubli by KEONICS and for the Mangalore Urban Development Authority to construct the complex and to let out the same to INFOSYS HUDCO has assisted a loan amount of Rs. 7 crores with the project cost of Rs. 14 crores.

In the education sector, for the establishment of residential schools across the state a loan amount of Rs. 76 crores with project cost of Rs. 82 crores, for the construction of Yenapoya medical college an amount of Rs. 26 crores with the project cost of Rs. 61 crores.

HUDCO assisted three schemes covering 1,300 villages to Karnataka Rural Infrastructure Corporation Ltd., as the nodal agency with financial assistance of Rs. 288 crores. Loan from state Government is 80 %, share of state and local government is 10 % each. The component includes are improvement of infrastructure in villages such as water supply, storm water drains, sanitation, village roads and community facilities.

HUDCO also launched scheme called Model Village in 1998 to commemorate the 50 years of India's independence. Adoption of villages for integrated

development of the rural settlement with provision of adequate housing, basic amenities like water, drainage, sanitation, etc., community structure for education, recreational and healthcare, etc., Convergence approach with HUDCO assistance supplemented by inputs from MNES on solar power, smokeless chullah, biogas., from the technology mission for drinking water supply, sanitation from village abadi improvement and housing from Indira Awas, etc. In Karnataka Banandur near Bidadi, Haradanahalli near Hassan has been developed as Model Villages.

HUDCO BRO is also associated with government of India action plan programs JNNURM in a big way for the Karnataka state. There are total 11 BSUP schemes (Three for Mysore with 5346 houses and eight schemes for Bangalore city with 5017) houses with the total project cost of Rs. 502.18 crores with the central assistance of Rs. 300.43 crores with total of 10,363 houses.

In IHSDP Schemes across the Karnataka state apart from Bangalore and Mysore there are 34 schemes with the total project cost of Rs. 376.97 crores with the total central assistance of Rs. 222.70 crores with 17,237 houses.

10.3.2 HUDCO and Bangalore Development

Similarly, the HUDCO has assisted in a big way for the overall development of Bangalore city. It started with the housing project at National Games Village housing complex with the project cost of Rs. 334 crores with the loan amount of Rs. 270 crores with over 2000 flats. HUDCO assisted for the National Games Village Housing Complex, the first and unique style of flats for the middle and higher income groups in Bangalore city. In addition it also assisted in establishing Kengeri and Yelahanks as satellite towns.

In the Kengeri housing project with a cost of Rs. 40 crores and loan amount of Rs. 35 crores have been spent, Brigade Millennium project with the project cost of Rs. 60 crores and loan of Rs. 6 crore, and Raheja Residency at Koramangala with the project cost of Rs. 80 crores with the loan amount of Rs. 18 crores.

The Bangalore Water Supply and Sewerage Board (BWSSSB) has established tertiary treatment plant at Vrishabavathi valley and Yelahanks with the HUDCO loan assistance of Rs. 55 crores with a capacity of 70 MLD for supplying the treated waste water for industrial use. Tertiary treatment plants for Bangalore city at V. valley and Yelahanks save the cost of water supply considerably.

HUDCO assisted the Bangalore Development Authority (BDA) in the formation of the Internal Ring Road (IRR) which connects the old airport road to the Koramangala area with 3.6 km stretch with the project cost of Rs. 14 crores and loan amount of Rs. 5 crores. BDA has also formed Outer Ring Road (ORR) with the project cost of Rs. 277 crores and the HUDCO loan assistance of Rs. 174 crores for the stretch of 68 km which runs across the Bangalore city outer areas and has boosted the overall development of Bangalore city. Formulation and implementation of Outer ring Road, which runs across the Bangalore city in a radius of 8–10 km which touches across the various roads, such as Bellary road, Tumkur,

Mysore, Kanakapura, Bannaraghatta road, and old Madras road. This boosted the city development across the outskirt and which is instrumental in the development of Information Technology sectors in the city. HUDCO also assisted BDA for the development of residential layout development at JP Nagar, HBR, and NGEF layouts. Assisted BDA in the affordable housing project which caters to the needs of economically weaker section of society.

For the development of Bangalore, the HUDCO assisted Bangalore Mahanagar Palike (BMP) earlier also which is now called Bruhath Bangalore Mahanagar Palike (BBMP), Sirsi circle flyover, Richmond circle flyover, underpass at Mekhri Circle, CNR road, Banashankari, Tagore road, etc., improvement to KR Market, Madivala Market, shifting of Iron and steel market from city to Kondadasapura, construction of crematoria at various places, improvements of roads and foot paths, improvement of lakes, etc. Now with the better tie-up and single big financial institution/partner with BBMP for the development of Bangalore. The entire project is self-sustainable with a unique escrow mechanism. HUDCO also offers technical suggestions for the better management of BBMP assets and revenue for the welfare of Bangalore citizens. Environmental improvement project BBMP for better management of storm water drains and lake rejuvenation has also been put in place.

The HUDCO also assisted with a line of credit of Rs. 150 crores for land acquisition and development of Bangalore International Airport at Devanahalli. This is instrumental for the establishment of International airport at Devanahalli and further development across the Bangalore city.

The HUDCO also assisted for Khanija Bhavan Office Complex for state government departments with loan of Rs. 30 crores.

In the education sector, HUDCO assisted the construction of Nagarjuna Vidyanikethan School at Yelahanks, Global Academy of Technology at Rajarajeshwari Nagar, etc. The HUDCO also assisted the construction of Jayadeva Institute of Cardiology, which has now become the famous Cardiological Hospital known across the globe.

Assisted once for the formulation of Surya Nagar Township Project—a mega township project for the IT corridor. Also assisted once for the land acquisition and formulation of New International Airport at Devanahalli.

Public Private Partnership: Divyasree Chamber—which presently houses the Maharaja parking Lot at KG road. In the instant case land was owned by the BBMP and HUDCO assisted the project formulation, implementation and financing and a private builder constructed the project with the joint venture with the BBMP.

Assistance for public transportation in the form of Bangalore Metro. The HUDCO is the first institution from India for metro assistance. Assistance for ITPI building for Bangalore Regional Chapter. Assistance for Bangalore, BBMP initially for roads, flyovers, improvement of footpaths, market complexes, crematoria's. Partnering with state government for slum free India through Rajiv Awas Yojana across the state.

10.3.3 HUDCO Is Unique and Is Different

The HUDCO encourages the use of locally available material, technology, and ensures that project is technically feasible, financially viable and having sufficient demand/need for the society. Encourages environmentally sustainable materials. Ensures proper project formulation, timely implementation and proper monitoring toward the successful completion of the project.

HUDCO makes profit not only profit but profitability with social justice. But it also ensures that through its project assistance it also ensures profit for the state government/all its stakeholders. Multidisciplinary team appraisal and monitoring of the project and a mission approach.

Over 97 % assistance is made available for economically EWS and LIG. Unique institution in the country at the national level concerned with for the development of housing and urban development. The HUDCO nominee will be at the board of all the borrowing agencies. HUDCO monitors the project through quarterly progress report (QPR), inspection, monitoring committee, and escrow mechanism.

The HUDCO advocates and proposes user charges for the services delivered to the public and now across the country user charges are collected by the government agencies, such as solid waste collection charges, sewerage and water supply connection charges, cess collected from the consumption of the motor fuel toward usage of the public transportation services, toll roads, etc.

HUDCO is associated with various aspects of urban development/urban planning, such as housing, urban development, urban infrastructure such as water supply projects, sewerage/storm water drainage, solid waste management, improvements roads, foot paths, flyovers, underpasses, commercial and health infrastructure, township projects. It helps in project formulation, appraisal, implementation, and proper monitoring of the project toward successful commission. While doing the same it also ensures that appropriate relevant technology will be used, it ensures economy in material use, manpower, time bound completion of the project. It also consider the relevance and appropriateness of the project so that the project will yield desired results for the welfare of the community.

The HUDCO has proposed various innovations in its projects to make the viability and self-sustainability of the project; water supply; advance registration charges, connection charges, enhancement of water tariff, water benefit tax/water tax, betterment charges, development charges, utilization from other sources property tax, sale of plots and charges from water, kiosks sewerage connection charges, sewerage cess tax, conservancy tax, sale of renewable waste, sale of sludge and sale of nutrient rich water. Solid waste: collection charges, cess, sale of renewable waste, and fines for dumping waste.

Earlier HUDCO had a dominating role; now the same has been changed and now it witness competition from other market players.

10.3.4 Experiences from BRO Projects Exposure

Across all corners of Karnataka state HUDCO colonies have been developed with a good mix of EWS LIG, MIG, and HIG housing and better planned community facilities. Model townships/layout development have spread and developed across the Bangalore, Mysore, secondary cities and tertiary cities across the Karnataka state.

Hygiene Karnataka has initiated a. Low cost sanitation scheme through an integrated programme. Urban and rural housing for the poor through Ashraya Housing Schemes (Urban and Rural), Matsya Ashraya Schemes, 2 million Housing Schemes, Basava Vasathi Yojane; thereby the HUDCO reached the un reached.

Implementation of JNNURM schemes such as BSUP and IHSDP schemes, thereby providing subsidized housing for the slum dwellers, along with infrastructure support. The already initiated RAY scheme is also implementing the concept of slum free India. Integrated development of Urban infrastructure improvements across the urban local bodies in Karnataka.

Integrated development of Villages through Swachh Grama Yojana. Staff rental Housing Schemes across the Karnataka state through KSPHCL. Augmentation of water supply schemes through river water as perennial source of water supply across the towns of Karnataka state. Improvement of roads and bridges across the Karnataka state through Karnataka Road Development Corporation (KRDCL).

10.3.5 Suggestions for the Future

- Improve the existing city by implementing the entire available program and bringing it to the level of smart city.
- Develop the satellite towns as self-contained units with mixed land use and maintain better transport with better and more frequent public transport such as road and rail transport.
- Low rise high density development with balance mix of EWS, LIG, HIG houses.

Develop the township with minimum disturbance to the natural eco-system, use natural drainage topography, tanks, hills, undulating ground for better aesthetic appearance and natural landscape so that drainage will serve its purpose by discharging the waste, rain water, tanks will act as recharge ponds and open space serves as lung space.

Develop the township along the national highway corridor for example Bangalore-Mumbai Corridor, some of them will be textile industries, service industries, dairying, agriculture and allied industries, export industries, and most importantly new IT parks.

The solid waste generation at source be segregated, avoid unnecessary generation of waste and treat the compostable waste separately, use advanced technologies

for the transportation of waste. Identify the land properly for solid waste disposal and use the scientific disposable method for the disposal of the waste.

Develop the ring road in secondary cities and while making the new area development schemes always maintain a good connectivity with the main city as it will boost the city development along the outskirts.

Establishment of treatment plant for treating the waste water, and reuse of treated water for other purpose so that precious water can be saved.

Implement rain water harvesting and wherever possible make ponds in the available open spaces so that it can be used as recharge ponds for sourcing ground water. Wherever possible divert the sewage entering in to the lakes and clean the tanks and use it as recreational and aesthetical place.

Better implement 74th CAA in its true spirit, use WC, DPC for the better management of the urban problems and urban administration and more meaningful public–private participation.

Implement the development plan proposals, make available the land and resource for urban poor housing and employment so that the cities will become more livable. Better improved public participation and implement the METRO rail system if desires and feeder system must be strengthened for the better functioning of the public transportation system.

10.4 Way Ahead

So far the chapter describes the existing planning system, experience in handling the current housing and urban infrastructure development projects by HUDCO and lessons learnt from the same. Now with the existing vision of the government with the experience in the backdrop, how to go about for an improved planning system. Accordingly, an attempt has been made in the following paragraphs.

10.4.1 Smart City

A city can be defined as smart, when investments in human and social capital and traditional (transport) and modern (ICT) communication infrastructure result in sustainable economic development and high quality life, with a wise management of natural resources, through participatory action and engagement.

Smart city is one that makes urban life comfortable and improves living standards through good governance, efficient community or neighborhood, health, and education services. In smart city the effective utilization of good governance lies in prudent utilization of natural resources, minimum waste generation, recycling of waste water, segregation of waste at the point of generation and recycling, water harvesting, and efficient energy use.

Smart cities can be identified (and ranked) along six main axes or dimensions. These six axes connect with traditional regional and neo-classical theories of urban growth and development. In particular, the axes are based—respectively on theories of regional competitiveness, transport and ICT economics, natural resources, human and social capital, quality of life, and participation of citizens in the governance of cities. Smart cities are defined by their innovation and their ability to solve problems and use of ICT's to improve their capacity. The availability and quality of ICT infrastructure is not the only definition of a smart or intelligent city. Other definitions stress the role of human capital and education and learning in urban development. The other approach is the role of social and human capital in urban development. This may include a strong focus on the aim to achieve social inclusion of various urban residents in public services and emphasis on citizen participation in the design of urbanization destiny.

Sustainability has gained as a major strategic component of smart cities. The move toward social sustainability can be seen in the integration of e-participation technique such as online consultation and deliberation over proposed service changes to support the participation of users as citizens in the democratization of decisions taken about future levels of provision. Environmental suitability is important in a world where resources are scarce, and where cities are increasingly basing their development and wealth on tourism and natural resources: their exploitation must guarantee the safe and renewable use of natural heritage.

Wireless sensor networks are a specific technology that helps to create smart cities. The aim is to create a network of distributed network of intelligent sensor nodes which can measure many parameters for a more efficient management of city. For example, water leaks can be easily detected or noise map can be easily obtained. Rubbish bin can send an alarm when they are close to being full. Vehicle traffic can be monitored there by it can reduces traffic jam and less pollution can improve the quality of life. Ex. Vienna smart city, Amsterdam smart city and Dubai smart city, etc., to be implemented. There are opinions that small towns and cities that are not handicapped by the issues like congestion and limited land availability could be chosen to first to be developed as smart city.

Government of India is allocating Rs. 7040 crores in the budget for the year 2014–15 for developing the 100 smart city across the country. Even though there is no clarity on how to develop the smart city, who will implement the project, what are the modalities involved, let us understand the concept of smart city first. The concept of smart city is becoming the new initiatives started across the country. China will be developing 300 smart cities by 2050, India is developing 100 cities, Delhi Mumbai Infrastructure Corridor (DMIC) develops 7 by 2040, Middle East 50 projects which is inclusive of Energy city Doha, King Abdullaha Science and Technology city, Riyadh, and Masdar city Abudabhi.

10.4.2 Smart City—Indian Context

In the Indian context the smart city concept has just begun. The emerging towns should include under smart city initiatives aimed at energy efficiency, clustering of infrastructure and efficient management and governance ensuring inter-sectoral linkages.

The model of smart city development could be purely Indian with special focus on Indian condition. The smart city will address the chronic urban problems such as pollution, shortage of services, housing shortages, slums and providing all the physical and social infrastructure. Thereby, the existing problems are proposed to be better addressed and future to problems avoided. The implementing agency will be either an autonomous body, or special purpose vehicle. The Country has evidenced the implementation of the JNNURM scheme in a big way. The experience will help in implementation of the smart city project. The smart city may use all the available latest technology-based governance that enables efficient public services and has round the clock water and power supply, 100 % sewerage, drainage and solid waste management facilities as well as world class amenities and facilities. To mobilize the required resources, funding through public-private partnerships, multi-lateral agencies, and viability gap funding by the government of India/HUDCO could be explored. The Corporate Social Responsibility (CSR) fund may be the new element of input for the development and same may also to be tapped for the implementation of the smart city programme.

For funding the smart city private sector financing in a big way through Public Private Participation (PPP). In addition the viability gap funding through HUDCO, GoI/ULB, etc.

The experience from formulating and implementing schemes like JNNURM and others such as RAY will lay a better foundation for the new Smart city programme.

10.4.3 Potentiality of the Latest Technology System in Smart City

Planning for Sustainability: Efficient allocation and management of land and resources: integration and agglomeration of data to create meaningful information, detection of waste, inefficiency, and theft.

Efficient Management of Urban System and Networks: Optimizing land use and spatial planning, management energy, managing traffic and transportation, managing water supply, sewerage, and sanitation.

Public Finance Management: Public accounting and property tax collection of user charges operation of single window for approval of plans/land use conversion.

Efficient Delivery of Public Services: Policing and surveillance of public space ensuring timely delivery and access of public health care, efficient monitoring of public access to services and amenities.

Citizen Outreach: Linking people with livelihoods, participative decision making; e-governance, Ward Committee (WC), Metropolitan Planning Committee (MPC), and District Planning Committee (DPC).

10.4.4 Bench Marking Smart City

Physical Planning: The residential density of 175 persons per hectare or 70 persons per acre. People can access to public transportation services either by public transportation or walking or cycling, carpooling activities, and avoiding personalized automobile vehicles. All the community facilities will be accessible within a distance of 500 m distance from home. Each neighborhood will be designed in such a way that mixed land use, i.e., 30 % each for residential, commercial and community facilities.
Water and Electricity: 100 % of the household have access to water supply, electricity, 24 × 7 supply of water and electricity with 100 % metering and 100 % revenue collection.
Storm Water Drainage: 100 % storm water drainage network. Similarly 100 % solid waste collection, 100 % recycling of waste, 100 % segregation of waste into degradable and biodegradable types.
Telephone and Internet: 100 % telephone and mobile, 100 % of the city Wi-Fi and 100 mbps internet speed.
Education and Health Facilities: Very good facilities at neighborhood level to city level start from dispensary to hospital nursery school to university. Use of renewable energy in all sections, roof top solar panel, adherence to green building norms and common ducting for all services. Above all, the effective public participation to be ensured through Ward Committee (WC), Metropolitan Planning committee (MPC), District Planning Committee (DPC) and promotion of good quality leadership at the city level.

10.4.5 Indian Smart City

It is the case study with a localized model. The city located at Amanora Park Town, Pune, Maharashtra. The Pune City Corporation developed the town. The city will be developed in 400 acres. The total residential unit area completion will be 15,000. The total 4000 affordable houses for the weaker section. At present the operation of the residential unit is 3000. The project commenced in 2007. The smart metering of water, electricity, gas, treatment of 100 % sewage water, and all distribution system are centrally monitored and controlled.

In Amanora with effective monitoring of distribution and consumption they have successfully maintain consumption below 100 L per person per day with quality living and customer satisfaction. The waste water will be treated and treated water get distributed for flushing in residential and commercial places, gardening, farming, and road side plantation.

All 400 acres of land what constitute Amanora Park Town today is acquired from over 200 farmers, whose marginal small land holdings have been consolidated in to a viable land parcel, the entity is Amanora Park Town. They engaged those families in meaningful occupations through massive CSR programs for resettlement of farmers. Farmers have established the business as contractors and involved in catering services, landscaping and gardening, attendant service, civil, electrical/mechanical housekeeping, security persons, and mall sales persons. India has to replicate and upscale the localized model, Amanora experience supplement it.

10.4.6 How to Implement Smart City

Consultations with the states to identify at least some of the important locations where the concept will be implemented are carried out. Identify the trend and pattern of urban expansion, potential growth center and based on the regional pattern, the potential for the employment generation, available existing connectivity through rail, road, air, water and information technology-(IT) based network, available space for development with minimum impact on the natural eco-system, inclusive development with the model of development for all by developing all.

10.4.7 Issues in Smart City

Smart city plan has to be very flexible enabling best implementation. Cost has to be shared by the center/state and external funding. More public and private partnership to be encouraged. Guidelines to be set for smart city. Instead of developing the city and village separately, develop both of them complementary to each other in line such as city with smarter approach, and village with Provision of Urban Amenities in Rural Areas (PURA) approach.

Smart city plan comprises of conservation nature and natural resources. Urban poor housing and their employment and empowerment to be prioritized in smart city. Low rise high density development, better integrated public transportation, housing for all with affordable housing, mixed land use with better neighborhood concept with more livable and walkable cities. Smart city plan make use of balanced regional development concept with entire city region to be homogeneously developed with the development of city and surrounding region to be complimentary to one another.

In Karnataka state even though we are looking forward to smart city, the ground reality is something different and this is not only in Karnataka but in other states also. There are 28 urban development authorities (UDAs) in the Karnataka state. Most of these DAs during the last 10 years have not formed a single layout

development scheme. Their mandatory duties or main object is to form the layouts by acquiring land and distribute sites to the general public at affordable price. Accordingly, urban development department (UDD) has enjoined target of distributing 1 lakhs sites to the general public from all the 28 DA's. As per the 2009 policy DAs have to form layout on the basis of joint venture with the land owners on 60:40 basis but not much progress is achieved. As per the present Land Acquisition Act 2014, if the land is to be acquired for the public purpose then the 80 % of the land owners has to give consent. In this scenario the UDD department even directed UDAs to go for joint venture even with 50:50 basis.

Bangalore Development Authority (BDA) during the last 10 years has not formed even a single new layout development scheme because of the constraints of the land acquisition. But on the other hand due to nonavailability of the land BDA has started constructing high rise apartments and started distributing it to the general public. This is perhaps a positive development from BDA and has become the order of the day too.

In the Karnataka state 74th Constitution Amendment Act (CAA) implementation is a modest success. Most of provisions are getting implemented. The formation of ward committee (WC) and Bangalore Metropolitan Planning Committee (BMPC) was not formed. But positively through the direction of High Court, the government of Karnataka has conducted election to the BMPC during September—2014. Similarly Akrama-Sakrama Scheme of BBMP has been implemented but Tax revenue has not been increased during the recent past. Solid waste management and disposal of waste is becoming a serious problem in Bangalore city.

10.4.8 JNNURM and Ray Scheme

JNNURM started in 2005 and achieved modest success in both the submissions. Even though most of the schemes are completed same are still under some progress and got extended up to March next year. Similarly there are some uncovered towns and cities. These uncovered towns and cities to be covered in the smart city or through other schemes.

Similarly the concept of slum free India through RAY scheme has begun and the scheme is yet in a preliminary stage. Now either the same has to be continued or to be merged with the newly proposed scheme called Affordable Housing for All-Urban Housing Mission.

10.4.9 Swachh Bharat Mission

Government of India launched Swachh Bharat Mission on 2nd October, 2014. This is a Five year program. India will celebrate Mahatma Gandhiji 150th Birthday in 2019 by that time it is expected that India will be clean India so that it will be more

meaningful celebration of the Mahatma Gandhi 150th Birthday. It is a 5 year program, government of India as well as state will have to join hands together for the successful implementation of this program. The main focus is on participatory approach of every citizen of the country, then only the country will become clean. As Mahatma rightly said everyone must be his own scavenger.

10.4.10 New Adarsh Grama Yojana

In each parliamentary constituency, a Member of Parliament can develop three villages during the next 5 years with all the development works and build them as model villages.

10.4.11 Urban Housing Mission

Government of India will launch 'Sardar Patel Housing Mission'. To ensure housing for all by 2022, mostly for the economically weaker sections and low income groups through public–private participation, interest subsidy and increased flow of resources to housing sector. Government is also focusing on in–situ development of slums by encouraging vertical construction. Slum dwellers are entitled to not only roof over their heads but also safe and healthy environment, affordable transport and energy, safe and clean drinking water, employment and empowerment. Urban housing shortage including the 12th Five Year Plan period is 18.78 million. Significantly 95.62 % of this housing shortage belongs to EWS and LIG groups. Through housing for all government is initiating the scheme, but government can only act as a facilitator through this scheme. More public private partnerships are to be encouraged to make the scheme more viable and practical.

10.4.12 Conclusions

This chapter has focused on integrating planning knowledges. By taking the case of HUDCO, a national housing and infrastructure finance institution, how it is involved in planning and development of the nation and practical analysis of implementing housing and urban development projects has been attempted. The specific case is that of Bangalore Regional Office of HUDCO. So far government has implemented the policy such as 74th Constitutional Amendment Act (CAA), JNNURM, and RAY projects in a big way. Similarly to guide the future planning development for the nations, the new government of India policy has also been dealt with such as the Smart City Mission, New Urban Housing Mission, and Swachh Bharat Mission.

In this scenario, the role of national institution like HUDCO, is very vital. Government cannot act as a provider but can only facilitate development. Development activities are driven by the market forces. In view of the above, to strike the balance, to make inclusive development is the responsibility of all institutions and stakeholders. Planning education system should also focus on developing the future planners equipped with inclusionary ideas and techniques.

Reference

Keeble, L. (1964). *Principles and Practice of Town and Country Planning*. London: Estates Gazette.

Websites

www.hudco.org
www.mhupa.gov.in
www.moud.gov.in
www.NIUA.org
www.itpi.org.in

Chapter 11
Field Experiences of an Interdisciplinary Research in Planning: Stakeholders' Perspectives on a Small River in Gujarat

Bhawana Vasudeva

Abstract Peoples' consciousness about their environment is an important force that shapes their behaviors and actions. Different social groups in the society believe in particular value systems. This provides a frame of reference in my research to understand peoples' behaviors in regard to particular environmental conflicts. This chapter is based on my experiences of field visits and surveys conducted to assess peoples' perceptions about a small river. The main aim of research is to understand key stakeholders' perspectives on values, policies, and impacts those affects a small river. Rise of civilization and geography of mankind is defined by rivers. Social and economic needs, infrastructure, and urban development-related demands have over the years negatively affected natural structures and functions of rivers. These cause stress to human and other biotic communities. Peoples' perceptions and policy areas influence each other in both positive and negative ways. In this light, the question of comprehending peoples' perceptions seems to be missing from urban and regional planning education and decisions in various settings, including small rivers in India. Emerging challenges include making proper policies and creating effective policy implementation plans for securing a future of small rivers. In this context, a critical examination from stakeholders' perspective was conducted for river Vishwamitri, which is a small seasonal river flowing north east to south west between the river Mahi and Narmada, and it originates from Pavagarh Hills in Gujarat. This river flows through the city of Vadodara in Gujarat, India.

Keywords Stakeholders' perspectives · Small river · Values · Public policies · Field studies

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11.1 Introduction

Our environment and its deterioration is not a recent concern for mankind. Environment has influenced human behavior and at the same time human behavior has also affected environment. Exploitation of natural resources and problems of environment planning cannot be solved by isolated efforts as environment and human behaviors are interrelated. The perceived alternatives of decision makers' alone cannot ensure success. Therefore, success of any policy or program will directly depend on peoples' perceptions, values, and environmental choices, variety of needs, opinions, and preferences (Leboyer 1982). But it is extremely difficult to assess accurately these societal clues.

In the above context environment psychology field has potential to understand human behavior and actions toward their environment. Therefore, my present research is an effort to know a relationship between man and environment for better understanding of land use planning-related decision making in the context of natural resources and surrounding land. The present study was carried out in the upstream watershed region of the river Vishwamitri. The river Vishwamitri is a seasonal river in Gujarat state, which originates from Pavagadh Hills and flows through Vadodara city. Rapid changes in the study area, i.e., upstream of the river Vishwamitri watershed region, have negatively affected natural resources and functions of this river.

This chapter has two parts. The first part consists of introduction of the research area with details of objectives and research methodology. The second part introduces the river Vishwamitri and its existing condition in upstream area. It further discusses the role of various disciplines in understanding perceptions of people. The third part of the chapter contains experiences and learnings from the process of surveys and field work conducted to collect data on key stakeholders' perspectives. There are two main objectives and four sub-objectives of this research. Qualitative data collection is based on the objectives of the research. The methodology of this research consists of interviews with the key informants, face-to-face discussions, and photo preference surveys.

11.2 Natural Resources—Water and Rivers

Water is recognized as a basic human need and a very important natural resource. The freshwater resources comprise river systems, groundwater, and wetlands. Each of these has a unique role and characteristic linkages to other environmental entities (Ministry of Environment and Forests 2006). Rivers are an important component of water resources available to any country and play an equally important role in the lives of the people. Rivers are important element of this larger ecological system which provides water. National Geographic (2014) elaborates that a river simply cannot only be defined as a process by which river balances its load and transport it

to the ocean, but rivers constantly interact with their physical environments, human factors, and climate. These interactions bring changes in the river energy, velocity, and landform and river channel characteristics.

Many major cities of the world are located along the banks of rivers. The sound health of a river is equally important for healthy and economically wealthy society. In the past, society has always benefitted due from the presence of rivers (Postel and Richter 2003). Postel and Richter (2003) perceive a strong connection of rivers with human spirituality. They note that rivers are 'symbol of purity, renewal, timelessness and healing, rivers have shaped human spirituality like few other features of the natural world' (Postel and Richter 2003, p. 5).

National Geographic (2014) further notes that tributaries of small rivers carry runoff from their respective watersheds and feed the fresh water at the confluence to the larger stream or parent river. Most of the big rivers are formed by many tributaries. Tributaries do not drain their water into ocean directly and also called as affluents. In India many holy cities were built at the confluence of tributaries of large rivers. These cities are known for their historical and religious significance. Confluence of large rivers and tributaries is considered sacred. Famous river Ganga has a dozen tributaries. Rivers in India have played a vital role in forming peoples' socio-cultural, religious, and spiritual beliefs. Indus, Brahmaputra, Narmada, Tapi, Godavari, Krishna, and Mahanadi are seven major rivers in India. These seven rivers with their tributaries form the river system of India (Water Resources Information System of India 2014).

11.3 Rapid Urbanization and Condition of Small Rivers

According to Water and Mega Cities (2014) fast urbanization process is creating social and environmental problems in South Asia. This phenomenon is giving rise to global environmental changes. The hydrological and hydro-geological settings of each region have been deteriorating due to rising levels of urbanization in developing countries. With time a sharp increase in waste quantity and over utilization and wastage of water resources has deteriorated condition of rivers in India. Big rivers could barely survive this adverse situation, but small rivers started dying and many of them lost their natural pristine conditions. Many healthy small rivers in various Indian regions and their interconnected lakes are now known as nullahs or drains. These rivers once had fresh flowing water (Narain 2012).

Urbanization and industrialization are not the sole reasons for the worsening condition of small rivers in India, and there are various other factors responsible for their condition. These river regions generally do not receive full and honest attention of decision makers in various settings as compared to urban areas. These regions are treated with inadequate policy framework, ineffective implementation, and governance as they exist in the peripheral regions of big cities (Narain 2012). Conditions of small and big rivers are not very different in the state of Gujarat.

Viewed in this context, the condition of the river Vishwamitri is no different resulting in its being labeled as gutter Ganga.

Gujarat is India's most industrialized state, located along the western coast of the country. According to Sen (2010) Gujarat is one of the prominent states in terms of economic growth and industrialization, but still remains 'water stressed' state. He points out the lack of equality in surface water availability in the form of lakes and rivers seen in the state.

Small rivers are in a crisis situation due to several reasons. A major focus of physical planning efforts is on the main urban centers like Vadodara in this region. Not much attention is paid to the surrounding region and its requirements. Once the major urban center gets fully built, new development and land use changes occur in the peripheral region. Upstream and downstream watershed region of the river Vishwamitri is also experiencing similar rapid land use changes. These changes are negatively impacting the entire ecosystem of the river Vishwamitri watershed region including the people living in this region.

In spite of extensive river-related research, policies, programs, regulations, and monitoring systems, the river gets polluted. There is no straight answer to the question of continuous degradation of small river environments. In search for answers to the above question, research has been conducted all over the world in the area of environmental psychology. Peoples' perceptions and policy areas influence each other in both positive and negative ways. In the existing planning system in India, stakeholders' opinions and participation are taken into consideration only after policies are drafted. This form of participation is limited and takes place in a piecemeal manner. The question of understanding peoples' perspectives and perceptions seems to be missing in case of planning decisions in various settings, especially for often neglected small rivers in India. A gap is found in the area, and my research makes an attempt to throw some light on peoples' perspectives about small rivers.

In the above context, this research began with the main research question: what are key stakeholders' perspectives about a small river? The aim of the research was to understand the key stakeholders' perspectives in regard to values, policies, and impacts that affect a small river. To carry out above research, objectives were framed in two sections. The first section consists of 'Understanding Stakeholders' Perspective on river values and meanings, river-related policies and programs, land use changes in the river watershed, and impacts on river and their causes. The second section of the objective was to compare differences and similarities among and between stakeholders' perspectives.

Gujarat has around 185 river basins in the entire state (Thakkar 2012). The river Vishwamitri basin is a part of the key river basin of central Gujarat that is Dhadhar River basin. The river Vishwamitri is a seasonal river, which originates from Pavagarh Hills and flows through Panchmahal and Vadodara district of Gujarat state for another 55 km toward west and it falls into the Gulf of Khambhat. The river Vishwamitri also flows through Vadodara city, which is one of the main urban and industrial cities of Gujarat state. Total length of the river Vishwamitri from its source at Pavagarh to outfall in the Gulf of Khambhat is about 142 km (Water Yearbook 2010).

11.4 Surveys and Discussion

The present study was carried out in the upstream region of the river Vishwamitri. The study of understanding stakeholders' perspectives was conducted on a 45 km stretch of the upstream watershed of the river. Upstream of the river Vishwamitri is taken as a case study and I have tried to understand the issues associated with its management and development. A small seasonal river which flows through Vadodara, a fast developing industrial region, faces multiple issues and problems.

The river Vishwamitri is a unique example of a river, which is religiously very significant and still acts as a common pool of natural resource for surrounding rural areas. Understanding stakeholders' perspectives in upstream region of the river Vishwamitri will include both urban and rural areas. It gives equal opportunities to various stakeholders to express their views about the river (see Figs. 11.1 and 11.2).

Guidelines for field studies in environmental perception discuss environment psychology as 'One important objective of research based on environmental perception is to provide a systematic and scientific understanding of the view from the inside-out' (Whyte 1977, p. 11). Whyte (1977) states that peoples' individual and collective understanding of their environments determines their preferences and

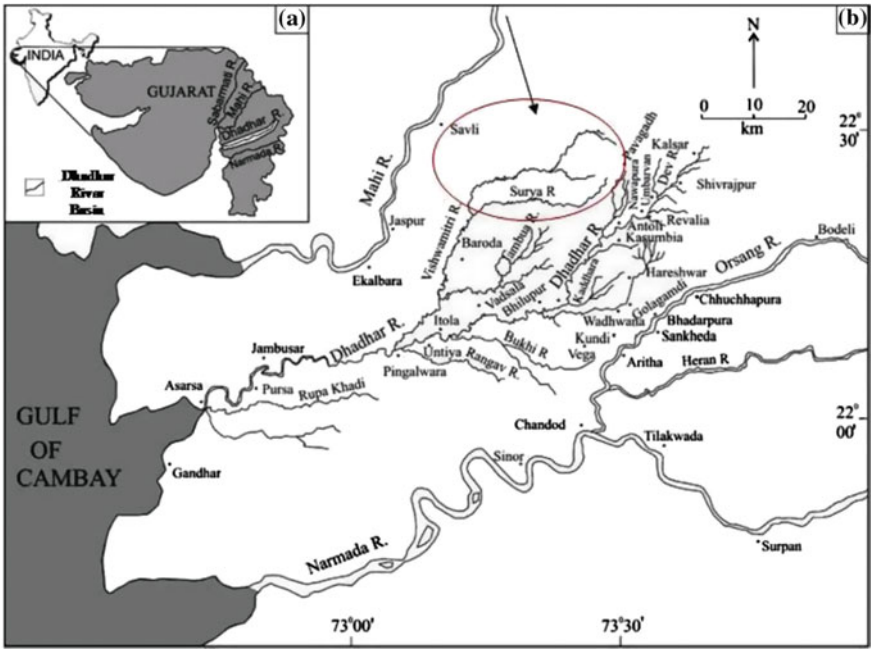

Fig. 11.1 Upstream of river Vishwamitri shown in Dhadhar River basin. *Source* Raj (2007). *Note* Above figure shows the river Vishwamitri and adjoining rivers in Dhadhar river basin

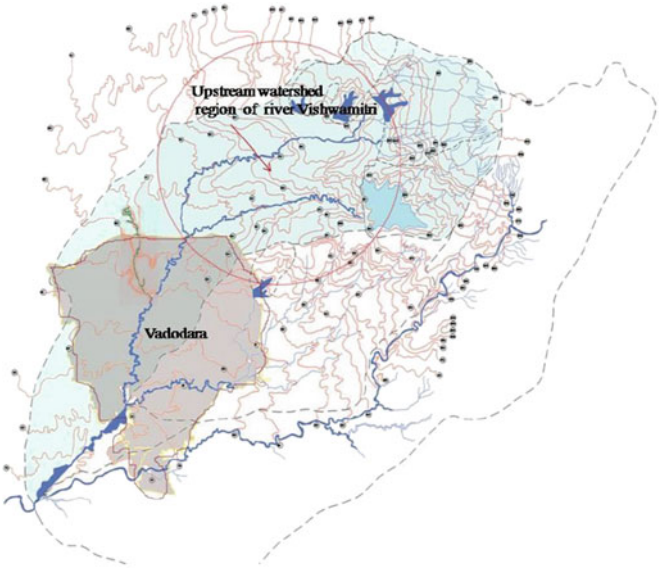

Fig. 11.2 Upstream watershed region of river Vishwamitri and Vadodara city. *Source* Vision Vishwamitri (voluntary work) presentation in year 2006 at Vadodara. The original map procured from Irrigation Department, Vadodara. *Notes* Above figure showing contour map of river Vishwamitri watershed region and map Vadodara city

actions. Inadequate policy framework and various stakeholders' perceptions and activities have definite direct and indirect impact on a small river like Vishwamitri.

In this research, the key research question, 'what are key stakeholders' perspectives about a small river,' provides a focus for the development of research plans. In this case exploratory and explanatory research approach is used to develop further research plan. The fundamental approach, i.e., observing, asking question, and listening, remained as principal methodological tools (Whyte 1977).

For this qualitative research, key stakeholders' perspectives on values, policies, and impacts were explored through two environmental psychology methods. The first objective of the research is divided into four clear sections to understand stakeholders' perspectives on

- River values and meanings.
- River-related policies and programs.
- Land use changes in the river watershed.
- Impacts on river and their causes.

To meet above objectives, primary data on key stakeholders' perspectives was collected by three different methods. These are questionnaire interview, focus group discussions, and photo preference survey. The photo preference survey consists of

participants' ratings on selected images or photographs from a number of photographs taken along the river Vishwamitri upper stream watershed environment depicting main issues raised in four subsections of the first objective. The secondary data is collected through archival and literature review.

Once data collection formally ended, the final analysis begins by organizing the collected data. Next, the collected data is entered in Microsoft Excel. In order to code data, I started entering data in excel sheet that is selected answers of each close-ended question in excel sheet. The codes were entered into data base for both questionnaires and photo preference survey. For questionnaire, I counted occurrences of codes for each question for each sub-objective and created bar graph using Microsoft Excel software based on frequencies of answers. Codes are the first step of analysis. Coding data is simply a theme labeling process for developing category system or primary patterns and assigning units of meaning to the descriptive information compiled during study (Patton 2002; Denzin and Lincoln 2011). Identification of emerging themes from data enabled comparisons and contrasts to be established between each set of data that is four groups of stakeholders and four sub-objectives.

Content analysis method is used for questionnaire and focus group data analysis and factor analysis method is used for photo preference survey data analysis. The aim of the research was to gain insights into stakeholders' perspectives about the river Vishwamitri. The information collated was used to identify areas of correlations with the perspectives of stakeholders who participated in all three data collection methods.

Among all four categories of stakeholders, it was found that stakeholders particularly those who live close to river watershed area in upstream river region are more closely associated with the river in spite of its deteriorating condition. Low income or small farmers and villagers value the river for economic gains they receive from it in terms of free water for their farms, cattle, and other domestic purposes. Apart from economic advantages, farmers and villagers appreciate and value the river Vishwamitri for its presence in their region. They feel proud to be living close to the river due to its direct association with the ancient sage Vishwamitra and several holy places situated on the both sides of the river bank. Many old and religiously significant temples are located in small villages situated along the river Vishwamitri watershed region. These places attract many visitors on a number of occasions in a year.

For stakeholders with urban exposure, the polluted condition of the river in lower part of upstream always dominated their perspectives regarding river values and meanings. Pollution, size of the river, and encroachment on river banks in urban area were highlighted over river and its religious significance. Farmers who get benefitted by government policy to build check dams recognized their efforts, which yielded in retaining good quantity of water in the river throughout the year. Researchers and activist groups highlighted the need of formation of clear policies and rules regarding land use change in river watershed area.

Founded on a participatory approach, this study shows that it requires commitment of government resource managers and planners to provide public

participation opportunities that promote the facilitation of achieving desired water allocation and environmental outcomes. Some of the most valuable information in the world is not located in a library or online. Field research is a way of unearthing that information. Field research can be an extraordinarily exciting and rewarding experience. In this research, the main aim was to gather information that contributes to developing an understanding about stakeholders' perspectives about upstream of river Vishwamitri watershed region. This field research helped to organize those findings in a cohesive and persuasive document that proposes new insights, answers, and solutions. In this research, surveys were conducted upstream watershed region of the river Vishwamitri among four groups of stakeholders. These four groups are government employees, farmers and villagers, researchers and activists, and industrial workers.

The following subsection discusses important steps and related experiences while conducting field work for the above research. The field work started from pretesting before making the final questionnaire. Here the whole process of designing data collection instruments is divided into three parts to get best instruments for final data collection:

- Preliminary questionnaire.
- Pretesting.
- Final questionnaire.

The final questionnaire was prepared by taking into consideration learning from pretesting. During pretest it was observed that respondents were finding it very time consuming and difficult to answer all open-ended questions. Therefore, the final questionnaire was designed with combination of open-ended and multiple choice questions. The final questionnaire was prepared in two languages, English and Guajarati. The questionnaire has five sections and each section consisted of less open-ended and more number of close-ended questions with multiple options as suitable answers by keeping the following points in view:

- Keeping questionnaire simple.
- Design such questionnaire that people are willing to answer.
- The main idea is to make participation easy and inviting because if it is too complex or time consuming, the respondents may not like to participate, especially busy government employees or industrial personal.
- Therefore, I included few open-ended questions to get new ideas and to make conversations interesting for participants, I avoided biased questions to get variety of participation.
- Correct translation of questionnaire in local language and use of many common local words are very important in the field survey. Answers to such questions in local language will instill confidence and build interest.

The aim of the research is to know stakeholders' perspectives about the river Vishwamitri. Here the term stakeholder broadly refers to individuals, groups, and organizations who have direct or indirect opportunity to be engaged in policy making, program implementation, economic or emotional connect due to their

home or work location, with the river Vishwamitri. Therefore, in this research, the following are basic reasons for selection of research participants:

- Purposive sampling and snowball sampling.
- Representatively.

Key stakeholders in this research include officials from key government departments, individuals associated with industries located along the river, local residents earning livelihoods and living close to river watershed region, and activists and researchers closely connected with the river Vishwamitri.

- In this qualitative research, purposive sampling method is used to select rich cases. According to Patton (2002) purposive sampling allows information-rich cases to be selected from which researcher can learn about the issues central to the purpose of the research.
- Initially, it was difficult to get more than 30 samples in each category of stakeholders. Then a book on qualitative research written by Patton referred to give clarity on sample size. In that book Patton explains sample size in qualitative research and states 'There are no rules for sample size in qualitative inquiry. Sample size depends on what you want to know, the purpose of the inquiry, hats at stake, what will be useful, what will have credibility, and what can be done with available time and resources' (Patton 2002, p. 244). Finally, a total of 73 samples were taken in the field survey.
- In this research, eventual sampling unit represented a broad cross section of stakeholders from each of the stakeholder groups, who were directly or indirectly connected to the river Vishwamitri.
- Diversity of stakeholders allowed different perspectives, about the river Vishwamitri to be heard. For example, government employees living in upstream watershed region were more sensitive toward religious significance and then the GEs living in a central urban area.

To meet objectives with deeper understanding of research and participants, three methods or 'triangulation' of data collection approach is adopted (Gibson and Brown 2009; Patton 2002). Following are three main components adopted in this research for data collection:

- Questionnaire Surveys.
- Photo Preference Survey.
- Focus Group Discussions.

Here the basic idea is to use three different methods of data collection. This type of triangulation helps in gaining an overview of research and data can be compared against each other. The function of triangulation or three methods for data collection is not mere verification of data but it also helps a researcher to develop overall understanding of research and position of participants (Gibson and Brown 2009). In this research design interviewing is used as a common method for collecting information from stakeholders. According to Patton (2002) it is very difficult

task to observe peoples' feelings, thoughts, intentions, and behaviors in any situation or time. People organize their worlds and meanings in a dynamic manner.

A photo preference survey is the second major data collection method that is used to find stakeholders' preferences for river-related issues. Here the photo preference survey ascertains and quantifies public perceptions of the visual quality of river Vishwamitri watershed environment (Kaplan 1985). Photo preference survey method uses photographed scenes and asks participants to indicate their preferences. The photographs included a variety of settings. Those settings were not completely natural or fully manmade. They were showing transition in river watershed environment. It is one of the most significant methods used in the field of landscape assessment, and used as fundamental instrument to measure peoples' preferences and perceptions of landscape scenes. The survey consisted of participants' preference ratings ranging from 1 to 5, one for least preferred and 5 for most preferred, on selected images or photographs from a number of scenes taken from river Vishwamitri upper stream watershed environment depicting main issues raised in four subsections of the first objective.

The third method used for data collection is focus group discussions or FGDs. As Patton (2002, p. 385) states 'A focus group interview is an interview with a small group of people on a specific topic.' Focus group experts Krueger and Casey (2000) have discussed the advantages of focus group discussions. In their view, it improves data quality due to better communication among participants and provides checks and balances among participants. The final field survey, which I conducted for three months in the upstream watershed region of river Vishwamitri using above-mentioned three methods, results in a number of insights that could be useful for planning educators and planning students.

- The reconnaissance survey of the entire river Vishwamitri upstream region was the first step taken in the process of this research.
- In this large (45 km in length) study area, it is important to make a correct beginning by making or procuring a base map from authentic sources.
- Sources such as geological map and topo sheets help to begin the base map preparation.
- Prior to data collection, other sources like literature review, government reports, and newspaper articles those highlighting river Vishwamitri helped in gathering some themes.
- Indirect observations are very important in helping to shape the researcher's views.
- In this research, it was useful to begin interviews with researchers and activists (RA) group first. Their involvement in the river Vishwamitri related to research in other fields helped a lot in the selection and finalization of other stakeholders for initial contact.
- I find gaps in collected information while evaluating initial observations. Therefore, before leaving the participant's interview premise, I requested permission for a follow-up visit. A further visit is important and useful to fill the gap in the collected information.

- It helps to remain flexible and allow the interview to go in unexpected directions instead of following very structured method of interviewing in qualitative research.
- If a question goes unanswered, shifting to next section immediately helped in better response from participants. Later on, researchers can come back to the previous section and attempt seeking answers to unanswered questions.
- In this research and field survey, making additional notes immediately after the interview helped a lot. These notes play an important role during content analysis in a qualitative research.
- Connecting with participants' area of interest with the research findings or results is a useful tool for better involvement of respondents. In this research survey, to increase the rate of response among government employees group, it helped to promise them to share a brief report of research results.
- When all the expected responses were collected, I sat down to tally the results. It is easy to count frequency of the answers of multiple choice questions. The answers to open-ended questions were summed up or paraphrased and then sorted into rough categories. This helps in finding patterns of results or findings of available responses.

11.5 Conclusions

This qualitative research adapted a system of perception studies in environment psychology to develop greater understanding of peoples' perspective and their behavior toward a small river by answering one main question: 'what is the key stakeholders' perspective about a small river?'

The field survey plays an important role in gathering appropriate data in qualitative research. From the very first day to the last, through the phases of establishing the first contact with the researcher and activists and farmers and villagers, refining the research instruments, selection of representative survey participants and conducting pretests, conducting photo preference surveys, and making follow-up visits, all the people of this region from all walks of life have been extremely cooperative. People and their cooperation play an important and positive role in conducting this type of research.

This approach assists in developing knowledge about a small river-related issues by identifying underlying behaviors influencing a natural system. This research provides opportunities to intervene within an existing system to ensure holistic decision making and sustainable management of natural resources for maximum human and ecosystem benefits. The stakeholders' behaviors can be assessed in the form of values, conflicts, issues, or perceptions. Stakeholders' values, perceptions and attitudes, influences management, and decision making process.

This research and its approach is a consistent effort to combine the better of the two worlds in a meaningful way. Here the two different disciplines like structure

and scientific underpinning of environmental psychology and the richness and inclusiveness of participatory methods are included to address complex issues of deteriorating condition of natural resources and societal changes due to development needs. The study allows policy decision makers to better understand motivations behind stakeholders' behaviors and stakeholders to reflect upon the implications of their behaviors on society and their physical environment. The results of the research show that the stakeholders are interested in being part of a healthy river watershed region. These findings can inspire stakeholders to begin to talk among themselves and integrate their efforts in balancing and maximizing human and ecological benefits in future land use and village development decisions. Planning education could benefit hugely from such case works.

References

Denzin, N., & Lincoln, Y. (2011). *The sage handbook of qualitative research* (4th ed.). Thousand Oaks, CL: Sage.

Gibson, W., & Brown, A. (2009). *Working with qualitative data*. London: Sage.

Kaplan, R. (1985). The analysis is of perception via preference: A strategy for studying how the environment is experienced. *Landscape Planning, 12*(2), 161–176.

Krueger, R., & Casey, A. M. (2000). *Focus groups: A practical guide for applied research* (3rd ed.). Thousand Oaks, CL: Sage.

Leboyer, L. (1982). *Psychology and environment*. London: Sage.

Ministry of Environment and Forests. (2006). Retrieved April 01, 2014 from http://envfor.nic.in, http://itpi.org.in/.

Narain, S. (2012). *Excreta matters* (Vol. 1). New Delhi: Centre for Science and Environment.

National Geographic. (2014). Retrieved March 01, 2014 from http://education.nationalgeographic.com/education/encyclopedia/tributary/.

Patton, M. (2002). *Qualitative research and evaluation methods* (3rd ed.). London: Sage.

Postel, S., & Richter, B. (2003). *Rivers for life: Managing water for people and nature*. Washington, D.C.: Island Press.

Raj, R. (2007). Late pleistocene fluvial sedimentary facies, the Dhadhar River basin, Western India. *Quaternary International, 159*(1), 93–101.

Sen, S. (2010). *Rational water management, Gujarat infrastructure*. Retrieved from http://www.Indiamicrofinance.com/business-packaged-water-India.html.

Thakkar, H. (2012). *Living rivers, dying rivers: Rivers of Gujarat*. Retrieved from http://www.sandrp.in.

Water Yearbook. (2010). Retrieved from State Water Data Centre, Gujarat: March 20, 2014 from http://www.swhydrology.Gujarat.gov.in/Documents/Publications/WaterYearBook2010.pdf/.

Water and Mega Cities. (2014). Retrieved March 20, 2014 from http://www.waterandmegacities.org//.

Water Resources Information System of India. (2014, May 23). Retrieved March 20, 2014 from http://India-wris.nrsc.gov.in/wrpinfo/index.php?title=Water_Resources_Projects_In_India/.

Whyte, V. (1977). *Guidelines for field studies in environmental perception*. Paris: United Nations Educational Scientific and Cultural Organization.

Part III
Urban and Regional Planning Ethics

Chapter 12
Role of Silences in Planning: Spatiality, Diversity and Power

Ashok Kumar

Abstract Since the past three and a half decades, planning theory has particularly focused on participatory deliberations assuming that interests of the marginalized and generally excluded groups of society would be better served if they are physically present, and are able to represent themselves and their interests in the decision-making arenas. The discourse ethic of Jurgen Habermas and the Collaborative Planning Theory developed by Patsy Healey over the past three decades has taken the centre stage in global northern universities and planning departments. Discourse is privileged over silences presumably because silences are not regarded as part of communication. Planning theorists both in the global south and in the global north have remained muted about the role of silences in planning. At the same time, literature in other disciplines such as philosophy, sociology and anthropology have grown and been impacting these disciplines deeply. Some authors have even treated silences as a part of the discourse rejecting the notion of silence as devoid of any meaning. I support this position that silences are a significant domain of communication without the use of words. More specifically, silences could also mean avoiding responsibility and promoting status quo and hindering progressive thought processes in academic institutions. Including subjects on the role of silences in planning curriculum would certainly deepen understanding of various aspects of planning theory.

Keywords Discourses · Silences · Spatiality · Diversity · Inequality and inequity · Power cube

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12.1 Introduction

Recently, planning theory has particularly focused on participatory deliberations assuming that interests of the marginalized and generally excluded groups of society would be better served if they are physically present, and are able to represent themselves and their interests in the decision-making arenas. The discourse ethic of Habermas and development of the Collaborative Planning Theory by Patsy Healey over the last three decades has taken the centre stage in global northern universities and planning departments.

Discourse ethics is privileged over silences presumably because silences are not regarded part of communication. Planning theorists both in the global south and in the global north have remained silent about the role of silences in planning. At the same time, literature in other disciplines such as philosophy, sociology and anthropology has grown deeply affecting these disciplines. Some authors have even treated silences as a part of the discourse rejecting the notion of silences as devoid of any meaning and content. I support this position that silences are a significant domain of communication without the use of words. More specifically silences could also mean avoiding responsibility and promoting status quo and hindering progressive thought processes in academic institutions.

In this chapter, I argue that planning education and planning educators in India have remained silent over the past 60 years about several crucial aspects, which are central to the advancement of the planning profession. One such major issue is the complete lack of discussion in planning schools and other universities and colleges teaching planning on how spatiality in planning education should be understood? This implies that diverse forms and roles of space and spatiality need to be clearly specified in spite of the complexity and dynamical nature of these terms. Second aspect about which planning education in India remains silent is the role of social and spatial diversity based on region, religion, caste and gender. I will argue that these silences have kept planning education poor because planning educators have been unable to take advantage of the findings based on these social and spatial differences. The third important aspect is the uncritical acceptance of the fact that participation and decentralization are inherently good for everyone. I argue that participation in any planning context is contingent on power, and therefore the question of whether vulnerable groups could benefit from participatory deliberations would also depend on how power gets used by the participants. Here, conflicts are downplayed and the adequacy of the perception of public interest is largely assumed. Based on this observation I will make an attempt to let silences have their rightful place in planning education, particularly in planning theory. Perhaps a Theory of Silence in Planning could be constructed. This chapter is the first attempt in this direction with examples from Indian cities. We require to emphasis these issues which hitherto have remained excluded from academic teaching and general discourses in the planning academy.

12.2 The Discourse Ethic and Collaborative Planning Theory

No professional subject of study including planning will possibility include everything of relevance in its scope, examination and research because many aspects are unknown in the present and many perspectives are yet to be experienced and explored by future scholars. Since each area of concern within a subject is gradually unravelled over space and time, to be all inclusive and comprehensive appears to be quite improbable task.

However, sometimes emphasis is deliberately placed on certain aspects of a subject even though certain other aspects remain excluded. Educators, academicians, practitioners, policy makers, among others remain silent about *critical epistemological exclusions* and appear complicit in wilfully perpetuating such exclusions. Seeking simplicity in the study of a subject may have provoked these deliberate exclusions. In this chapter, my idea of silences refers to wilful complicity on the part of the knowledge creators in disabling radical and transformative ways of knowledge creation. I presume that ignorance about certain aspects of knowledge about a subject has nothing to do with such critical epistemological exclusions.

My point of departure is that in town and country planning education and research, spoken words has acquired a place of privilege at the expense of silences. Two examples should make this point clear. First, all planning theories, particularly, the Collaborative Planning Theory, have placed 'the ethic of discourse' at the centre of planning whereby deliberations under the condition of communicative rationality are aimed at bringing about consensus among stakeholders (Healey 1997). Second, the ideas of participation promoted by a number of theorists have taken deep roots in planning. Planning literature is full of works demonstrating benefits of participation through the spoken word. From advocacy planning to equity planning, participation in decision-making processes are regarded imperative by all for arriving at fair and just decisions. It is argued that people whose concerns are being debated and decided upon must remain at the discussion table for arriving at fair decisions from the perspective of stakeholders (Arnstein 1969).

In all such studies, people are required to participate and debate about relevant planning issues in order to make any radical transformations possible. It is presumed that participation creates conditions of possibilities for bringing about desired changes for the marginalized and other groups, where planners are able to produce better results for everyone concerned. Possibility of securing and incorporating legitimate individual and community interests becomes real only by being present at the table and also by speaking up, articulating one's perspective, and critically examining other points of views before accepting or rejecting any proposal. All this is supported by a variety of knowledges including the scientific reason (Sandercock 2000, 2003). But the central focus remains the spoken word where discourse ethic takes the centre stage.

12.3 Comprehending Silences

As is evident, there is no mention of silences, and silences of all kinds are equated with muteness. There is no difference between a silent participant who is silent out of fear and a silent person who is silent because he physically cannot speak. In such situations, silences are not regarded as part of societal communication. I believe that silences are crucial part of communication, which sometimes is even more significant than spoken words. This implies that muteness can never equal silences. Equating muteness with silences has drastic consequences. To be sure, silences are gestures of agreements and disagreements as well as complicities. For instance, in *Mahabharata*, during disrobing of Draupadi, the wife of the Pandavas, Bhishma remains silent even when Duryodhana, the eldest son of the king Dhritarashtra, robs Draupadi of her dignity with a failed public attempt to disrobe her. Bhishma could be seen as in agreement and also complicit in this barbaric crime. However, his silence is largely excluded from debate and disregarded from any interpretation that I know of. Silences are remembrances as well as attempts to forget and underplay certain aspects of social practices, which are at variance with accepted norms of societies.

> Silence has the potential to assume multiple meanings (hence, silences). Here, on the one hand, the refusal to discuss the carnage … by the ruling regime clearly implies a shying away from acknowledging its role in the carnage and wrongfulness of the act. On the other, this amounts to hegemonic valorisation of the violence and thus the creation of a fear factor. The ruling regime, instead, wants to project itself as a deliverer of development. It is obvious that the … regime is keen on filling the void it created with the claims of development. Thus, development has come to be a boldly written placard to cover its own blood-stained face for the regime (Amruth 2007, p. 23).

Before I move forward, it is imperative that better understanding of various forms of silences is explicated. A number of authors have written about forms of silences. For instance, Winter (2010, pp. 4–6) have identified three forms of silences: liturgical silences, political or strategic silences, and essentialist silences. Winter explains that liturgical silences are about mourning, about losses, and about coming to terms with such losses by remaining silent. Silences here assume meanings of fallibility of human beings and also remembrances of their sacrifices and contributions. Losses incurred during war or any other violent incidents are remembered through liturgical silences. As cities and regions are becoming more and more violent even without full-fledged wars, liturgical silences could contribute to promoting peaceful and safe cities and regions. Relevance of liturgical silences for student planners needs to be explored by starting with the identification of those groups who have placed at disadvantage due to several reasons. Obvious example is groups of families who live in slums in all Indian cities without exception. Another group which have been consistently losing their lands is the Indian farmers. The third group is the landless labourers, who lose their right to livelihood once the land gets acquired. To begin with, the student planners could be taught about reading and interpreting silences of these individuals, families and larger groups who

continually lose in the cities and regions, and remain at the margins throughout their lives.

Political or strategic silences are most relevant to planning. "Here silence is chosen in order to suspend or truncate open conflict over the meaning and/or justification of violence, either domestic or trans-national. The hope here is that the passage of time can lower the hard feelings about disputes and events, or even heal the wounds they cause" (Winter 2010, p. 5). South Africa's Truth Commissions aimed at reconciliation between two races, and coming to terms about atrocities and crimes committed by the white ruling minority population on the black majority population during the days of apartheid is an example. Silences of this kind could be strategically deployed to transcend entrenched social divisions among communities in divided cities globally as well as in India. Planning schools in India could develop specific exercises for the student planners, which could be sympathetically read, understood, and debated in the classrooms. Atrocities based on caste have silenced many student voices in the university campuses, which is harmful for teaching of planning. We need to devise subjects which address these conflict-centred issues without fear and shame. To develop all student planners, this is crucially important that we address conflicts by reading silences, among other means.

The third type of silences is known as essentialist and exigency silences. Here the primary idea is that those who were not present at a particular violent or divisive event such as war or riots are not entitled to speak about such events. Therefore they should remain silent because they do not possess experience or personal knowledge through observation or being eye witnesses germane to acquiring knowledge necessary for speaking about the past. As far as planning is concerned, faculty coming from rich classes and higher castes taking up issues for the poor are looked upon with suspicion by colleagues from comparatively poor economic backgrounds and lower castes. Silencing of the faculty from higher income groups and so-called higher castes excludes possibilities of change that these teachers and their research insights could bring about. Doing good for the marginalized can never be regarded the monopoly of the people who are brought up under similar conditions. However, at the same time we must also remember that leaders coming from the same marginalized are better able to adjust with the marginalized publics.

Another important study needs to be discussed here. Four types of silences are outlined by Vinitzky-Seroussi and Teeger (2010; also see Table 12.1) with a case study from Israel.

Table 12.1 Types of silences

Axes of silences	Overt silence	Covert silence
Memory	Moment of silence	Bland commemoration
Forgetting	Pervasive silence	Cacophonous commemoration

Source Vinitzky-Seroussi and Teeger (2010, p. 1108)

- Overt Silence in the Domain of Memory;
- Overt Silence in the Domain of Forgetting;
- Covert Silence in the Domain of Memory and
- Covert Silence in the Domain of Forgetting

A subtle distinction is made between overt and covert silences. The authors argue:

> Overt silences are those types of silences that we quite normally think of. They are literal silences characterized by a complete absence of any narrative or speech and are thus usually quite easy to detect. Covert silences, on the other hand, are silences that inhere within speech. These are silences that are veiled by much mnemonic talk and as such are harder to decipher and identify (Vinitzky-Seroussi and Teeger 2010, p. 1108).

Overt Silence in the Domain of Memory takes the form of introspection and reflection about commemoration and recording the public information value of big events such as major tragedies, natural disasters, heroes, martyrs and deaths. This kind of silence has the capacity to disrupt normal flow of time, gestures, bodies, speech and even thoughts. Everything at the appointed time comes to a standstill and silence pervades the environment. All people turn into 'docile bodies' where population is disciplined or dumbed out for the sake of commemoration without any external surveillance (Foucault 1984). Indian societal conditions are very distinct from Israeli society. As these events are highly overwhelming, in India it is particularly difficult to know when they become normalized and ritualistic. Planning schools, university departments and other institutions teaching planning have the responsibility to devise value-based teaching whereby when the faculty and students come together for commemoration of these events, a certain meaning and content gets developed. An institutional environment fit to commemorate a leader or an event needs to be continuously created based on the values relevant to those leaders and events. Introspection and reflection is an Indian tradition which generates contemplative knowledge inclusion of which may certainly improve planning education (also see Sandercock 2003).

Overt Silence in the Domain of Forgetting is aimed at forgetting and not remembering. No one is making any mention of the issue at hand. Concerned groups or individuals are not tired or disinterested, but they 'actively do not wish to remember or commemorate a specific person or event'. Avoidance appears to be the chief characteristic of such silences. This strategy may heal over time or alternatively lead to disruptions as affected citizens may think justice is not being served. These forms of silences are most relevant to planning as planning faculty, and student planners remain silent about these crucial planning issues, and consequently these issues are never taken up for learning and debate in planning schools. Knowledge about the institution of caste as a social construction and its divisive consequences and disadvantages to the so-called lower castes are most evident for everyone to see every day. Not so surprisingly because most planning faculty comes from higher castes, planning schools, planning faculty and the student planners all remain oblivious to caste and its devastating role in cities and villages.

The question is how long the planning academy can remain silent about caste and set aside reading, interpreting, and examining spatial manifestations of caste.

Covert Silence in the Domain of Memory is aimed at remembering the past by making it simplified or interesting to more people who could then relate to the event being commemorated. This is also called bland commemoration as detailed critical context may be lost. In an attempt to make the past simple and interesting, certain perspectives of the past may be silenced. This kind of silence is critically important to planning educators. Learning relevant important aspects of planning and adapting them in the modern context could pave the way for developing Indian planning theories from old texts such as Arthashastra of Kautilya who was contemporary of Aristotle. Even Mahabharata has a lot to teach about planning as mentioned earlier. Both these old texts deal with governance, polity and economy, which is critically relevant to modern planning in India.

Covert Silence in the Domain of Forgetting aimed at forgetting the past by ensuring total silence about the past. Alternatively, commemorating a number of events at the same time and creating a cacophonous commemoration whereby a lot of noise acts as silence because commemoration of a specific event or person cannot be recognized. Understanding and codification of covert silence in the domain of forgetting could be helpful to the teaching and learning of planning.

Social production of silences is not only aimed at remembering and forgetting. Silences also perform a number of other functions and assume a number of other forms. In this chapter, I would like to focus on one such function, i.e. exclusions: silences could be used as a mechanism for excluding certain aspects of knowledge while creating a body of knowledge for any professional subject area. Drawing on Foucault, I argue that knowledge creators in planning have privileged time and history over space and geography. Time implies linear thinking; history is made by events while space is taken to be dead.

In this chapter, I refer to silences as complicities by planning educators in privileging certain forms of knowledges and certain forms of analyses of those knowledges. Let me explain essence of silences in the form of an illustration. In the classical Hindu epic Mahabharata, silences assume critical meaning, complicity in committing horrendous crimes and also as accessories to committing crimes. There are at least two episodes of silences in the Mahabharata.

First, the silences of Bhishma (great uncle of Kauravas and Pandavas), Drona (teacher of Kauravas and Pandavas), Vidura (brother and advisor to the King) and the King Dhritarashtra himself during the public disrobing of Draupadi during a game of dice between Yudhishthira and Duryodhana in the court of King Dhritarashtra. Second is the silencing of royal women. As the ladies were prohibited from remaining present in the court during the game of dice, Kunti and Gandhari were silenced by their absence. Similarly, Draupadi was also not allowed to attend the game of dice prior to her disrobing. Nature of the game and its rules are less important as my focus is firmly placed on silences and their consequences.

As Yudhishthira lost everything including his property, brothers and the wife Draupadi to Duryodhana, everything was owned by the winner, Duryodhana. Being slaves to Duryodhana, Draupadi was dragged and an attempt was made to disrobe

her in front of all men present, particularly Bhishma, Drona, Vidura and the King Dhritarashtra. Draupadi was saved from humiliation by the divine power of Krishna. Silences of Bhishma, Drona, Vidura and the King Dhritarashtra could be compared to today's planning educators. Educators not only remain silent about violent spatial injustices in Indian cities and regions, the planning academy willingly and vocally promote neoliberal agenda.

12.4 Silences as Complicities of Planning Academy

Historically, education of town and country planning has been deeply rooted in the subjects of architecture, civil engineering and geography. With the exception of geography, more particularly, human geography, planning education has generally been regarded as a profession whose primary task is to make blueprint plans leading to orderly development of cities. In this planning, land use factors become the central idea of planning, and processes that are germane to manifestation of these land uses are obscured. At the most coordination among different land uses is considered as most crucial. History and time are privileged over space. Even in today's India town and country planning education remains predominantly focussed on physical planning. Studios discussions are filled with materiality of cities, villages and regions. Process talk is regarded unnecessary and irrelevant to land use planning. Generally, the argument goes like this: we are physical planers, our concern is with the material aspects of settlements. This uncritical focus on the physical has over a period of time silenced several important critical process aspects of planning including space to which now turn.

12.4.1 Privileging Spaces

Planning educators in Indian schools remain focussed on physical planning, more specifically on land use aspects of planning. In this line of thinking, planning education is about providing hard skills for creating physical spaces at region, city and neighbourhood level with greater emphasis on designing places at city and neighbourhood level. This kind of planning education places greater stress on planning products rather than planning processes. Education is imparted largely through studios, where understanding of planning norms and standards takes precedence over political embedding of planning policies. For example, master plans in India recommend specific dimensions for housing typologies, and specific sizes and kinds of physical places such as district parks, commercial district centres, universities, colleges, and schools, but do not contain any discussion whatsoever regarding who the users of such places are apart from obligatory references to economic classes without even critically using economic classes as a basis for making policies and plans.

Significantly, planning theories are treated with contempt insinuating planning theories as esoteric and impractical. Educators quite frequently teach students that the gap between theory and practice cannot be fruitfully bridged. This kind of planning education places greater stress on certainty and homogenization, they being integral part of the project of modernity. Whether due to ignorance or due to any unexplained strategic reasons, there appears to be a complete silence about ambiguity and uncertainty of planning and uncertainty in planning. Nothing appears to be uncertain to the master planning model of planning where exactness is the norm.

Space in planning schools in India is treated only as physical space, which is required to be planned and designed to make it useful for people, participants and users. Land has to be sub-divided and developed with the provision of important networks of utilities such as water pipes, sewer lines, drainage lines, roads, electricity networks, landscaping, etc. Unstated belief is that physical space can be designed by professionals and that space does not play any constitutive role in moulding and reshaping humans and other aspects of nature; physical space does not react whatever changes are brought on it. Geography is not made, it is given. In contrast to this largely prevailing mind set, Lefebvre argues that space is not something of "a neutral container waiting to be filled, but is a dynamic humanly constructed means of control, and hence of domination, of power" (Lefebvre 1991, p. 2). Silences about implications of construction of places, and comprehension of space in Lefebvrean sense, is deliberately muted.

Space has multiple forms and plays multiple roles. Here I explore the idea of space by centring my discussion on two French theorists Henri Lefebvre and Michel Foucault and authors who have interpreted their large bodies of knowledge such as Edward Soja. In 'History: Geography: Modernity', Soja (1999) points out that time and history has been privileged over space and geography in the modern times. Time has been regarded:

> The present epoch will perhaps be above all the epoch of space. We are in the epoch of simultaneity: we are in the epoch of juxtaposition, the epoch of the near and far, of the side-by-side, of the dispersed. We are at a moment. I believe, when our experience of the world is less that of a long life developing through time than that of a network that connects points and intersects with its own skein. One could perhaps say that certain ideological conflicts animating present-day polemics oppose the pious descendants of time and the determined inhabitants of space (Foucault 1986, p. 22).

Even if we take up Henri Lefebvre and Edward Soja and begin to understand space in the form a triad, a number of new possibilities of understanding of space begins to open up, which could be surely beneficial to the Indian planning faculty as well as student planners (see Table 12.2). Silences about spatialization of planning are harmful, and has become a hindrance to the development of planning education as well as planning practice.

Table 12.2 Lefebvre's conceptual triad and related frameworks represented as categories of analysis

More Concrete		More Abstract	
Field	Aspects of traid (physical space/experience)	Examples	Human being
Physical	Spatial practice	Route, destination, way-finding, modes of transport	My body/Your body ↓↑
	Perceived space	*Smelling, seeing, hearing, tasting, touching, moving, attending, dissociating*	
Mental	Representations of space	Plans, discourses, concepts, methods, models, theories, academic disciplines	My mind/Your mind ↓↑
	Conceived space	*Thinking, reflecting, systematizing, ideating, imagining, interpreting, measuring, categorizing*	
Social	Representations of space	Home, graveyard, festival, family farm, office, public monument, nature, bed	My direct experience/Your direct experience
	Lived space	*Living 'in the moment,' loving, fearing, creating, witnessing, finding intersubjectivity, joining in, recognizing limits, remembering*	

Source Carp (2008, p. 133)

12.4.2 Spatial Inequalities in Indian Cities

Spatial inequalities refer to inequalities manifested through and by space where apart from history and time, geography and space also play a crucial part in creating differences and significances. In other words spatial inequalities are clearly embedded in space, location, or position as David Harvey shows in his framing of space as absolute space, relative space and relational space (Harvey 2006, p. 134). But these forms of spaces could be seen individually and collectively as explained below:

> space is neither absolute, relative or relational in itself, but it can become one or all simultaneously depending on the circumstances. The problem of the proper conceptualization of space is resolved through human practice with respect to it. In other words, there are no philosophical answers to philosophical questions that arise over the nature of space - the answers lie in human practice. The question "what is space?" is therefore replaced by the question "how is it that different human practices create and make use of different conceptualizations of space?" The property relationship, for example, creates absolute spaces within which monopoly control can operate. The movement of people, goods, services, and information takes place in a relative space because it takes money, time, energy, and the like to overcome the friction of distance. Parcels of land also capture benefits because they contain relationships with other parcels… in the form of rent relational space comes into its own as an important aspect of human social practice (Harvey 2006, p. 126).

Let us examine this further with the help of an illustration. This process could begin when after initial acquisition of capital, by whatever means, a person owns a piece of land or property. As this property is a storehouse of exchange value and multiple uses, property or space appreciates over a period of time. Let us also assume that after appreciation, the property is sold to another person who owns capital. Many such transactions of this property could be undertaken over a period of time. Geography of this property and its spatial dimensions become a key factor apart from time and history in determining inequalities. Assume also that this property is sold by an individual and with that capital she opens a business by acquiring commercial space in a certain location in a city. This spatial endeavour eventually leads to building of an empire in the city by use and exchange of physical space. Space has a material existence, which gets reflected in state policies. I discuss few examples below to show critical role of space in creating inequalities.

In 2005, Ministry of Commerce and Industry, Government of India came out with a legislation called Special Economic Zones Act, 2005 and Special Economic Zone Rules were created to implement the Act in 2006. Since then, formal approvals under the 2005 Act have been granted for 579 special economic zones in different states with Andhra Pradesh 109 and Maharashtra 105 SEZs. Out of 579 SEZs, 367 have been notified by the government. Out of all the notified SEZs, 62 % are meant for IT, ITES, and semiconductor sector (Ministry of Commerce and Industry, 2010, website accessed on 4th December, 2010; also see Government of India 2005, 2006). What are the expected and visible consequences of this far reaching legislation?

Critics perceive that this legislation would lead to 'the great land grab' from the farmers and other marginalized social groups (Bidwai 2006, p. 9) where farmers are dispossessed of their productive agriculture land and the same productive resource is taken over by large industrialists such as the Reliance and Tata. What has not been made part of this discourse of dispossession is the fact that a large number of landless workers who earned their livelihood by working on agriculture fields have lost their jobs, their only means of survival and measly incomes. This section of the labour class has lost everything including social discourse and dignity; and has resulted in their exclusion from livelihood opportunities and inclusion in any future policy follow up. But the new legislation titled "The Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013" makes provision for compensation for the landless labour too. This is however not to suggest that farmers are going to get fair compensation for their land or farmers are giving up land without pain; the reality is quite the contrary.

Implementation of the SEZ Act 2005 has led to uneven and unpredictable economic and social consequences. For example, in Singur, West Bengal violent clashes between farmers and workers on the one hand, and police and armed cadres of the Communist Party of India (Marxist) on the other led to a cancellation of the SEZ meant for manufacturing of small cars, touted by the manufacturer, the cheapest mode of private commuting meant for low income working classes. The plant was eventually closed and shifted to Sanand, Gujarat. Spatial troubles are addressed with spatial solutions, in this case shifting the automobile plant from Singur to Sanand. Political issues are also at play and history has greatly

contributed to spatial troubles. Farmers all over the country are not the same as the shifting of the Tata Car Plant from Singur to Sanand has shown. It has also shown that there is a diversity of interests of the state governments of West Bengal and Gujarat. At certain points, they pursue different or mutually conflicting interests.

In Nandigram, another SEZ was to be developed by the Indonesia-based Salim Group on 10,000 acres of land to set up a chemical hub. Here also people protested against the SEZ proposal. Violent clashes with the police on 14 March 2007 resulted in the death of at least 14 villagers. People eventually defeated the Nandigram proposal and West Bengal Chief Minister Buddhdeb Bhattacharjee had to announce that "the government has formally decided that it does not want bloodshed for industrialization". It is not only peculiar to the state of West Bengal while some people might blame it on the left wing government for what they perceive as a mess. Similar proposal for an SEZ was also defeated in Maharashtra. In Raigad district of Maharashtra Reliance Industries was planning to declare an SEZ, which would affect 22 villages. In total 10,000 ha of land was to be acquired including 3,000 ha from these 22 villages. This was productive land being used for paddy cultivation. Maharashtra government organized a referendum in 2008 in 22 villages to know whether villagers wanted their land acquired for the Reliance SEZ. People voted against the proposal.

Two points are here manifestly important. One, that industrialists and the state are not always successful in their land acquisition aims because during such historical moments the collective will and agency of farmers is able to defeat the unperspectival designs of the state and the industrial capitalists. In these examples, one may see an emerging movement of socialist farmers against the capitalist industrialists. This is quite a false impression. As noted earlier, state governments have been able to secure notifications for more than 365 SEZs throughout India and another 200 have been approved in principle by the end of 2010. Therefore, it would be correct to suggest that the SEZ policy is being successfully implemented with a few but important glitches.

But these agitations also show the diverse interests, needs and fears of the farmers throughout the country. For example, farmers in Nandigram, Singur and Raigad may have rejected the SEZ proposals but elsewhere they are fighting for enhanced compensation for their lands. For example, farmers in Gurgoan district in Haryana state, which is very close to Delhi, have been demanding higher compensation for their lands. They argue that their land is acquired cheaply by government and then handed over to a private company, the Reliance. But a part of land which is being acquired directly by the private company is being purchased at much higher prices. Farmers feel short-changed by the state government. Moreover, it has to be stressed that farmers in Gurgoan are not nostalgically bonded with their land and traditional occupations but quite concerned about inadequate payment for the sale of their lands. A case is pending in a court. Nonetheless, SEZs appear to give rise to new landscapes of enclosure as can be seen in Table 12.3.

As shown in Table 12.3, special economic zones lead to proletarianization of farmers and landless agricultural workers. Both factions of the farming class have little education and few skills useful for the new jobs being created in the SEZs that

Table 12.3 The new landscape of enclosure

Enclosure	Spatial formation	Mode of subjectification	Type of power
Geoeconomic	Special economic zone	Proletarianization	Governmentality
	Extractive enclave		
Geopolitical	Elastic 'territories'; global war prison; 'Camp'	Subjection;	Sovereignty
		'De-humanization'	
Biopolitical	Population: the body	Normalization	Biopower

Source Vasudevan et al. (2008, p. 1644)

are being built on their land. At the most these classes may be employed on low ranking jobs such as security guards.

How much compensation should be paid has been debated by those who pay compensation (industrialists and government agencies) and people who receive compensation for giving up their land to the government and private entities. One aspect of compensation which does not seem to receive adequate attention is that what happens to the money received by farmers as compensation. Our surveys in Gurgoan district in the context of the Reliance SEZ show that farmers have no experience of managing large sums of money paid to them as compensation. So, when they receive these comparatively large sums of money, they spend on conspicuous consumption rather than productive uses. We found many farmers who have purchased luxury cars generally on the insistence of their younger male college going children. Money is also spent quickly buying a good house and on the marriage of their daughters. But some farmers have purchased land in Rajasthan primarily due to low price of land (but also low productivity). There is no government support or skills training for the farmers to productively use their money, or in securing alternative employment. SEZs would create employment, but farmers do not have educational or technical qualifications to secure these high technology jobs. No compensation is being paid to landless labourers for the loss of their livelihoods; and loss of dignity and sense of autonomy and agency.

Thus, large and small entrepreneurs, property dealers, builders, etc. indulge in investments in built environment or more apparently in purchase and development of land in and around our cities. For example, Reliance Group of Mukesh Ambani, purchased huge swathes of land in the form of two Special Economic Zones. Area of both Mumbai SEZ (10,000 ha) and Navi Mumbai SEZ (4,163 ha) is 14,163 ha, making them together the second largest space held under SEZs after Shenzhen SEZ (China) with an area of 65,000 acre. Policy instruments such as SEZs promote spatial inequalities as space and geography become active and very material factors apart from time and history in accumulation of wealth in fewer hands. Therefore, spatial inequalities are seen here not so much as inequalities manifested on physical spaces but actively produced and reproduced through space over time. This kind of analyses is not regularly performed by planning students as the primary focus remains on the physical aspects of space or the absolute space.

Another example also comes from Dharavi, Mumbai. With an area of 223 ha this place is largely owned by the Brihanmumbai Municipal Corporation (BMC) with private sector and central government having a small proportion. New redevelopment plan makes two main proposals, first being, resettlement of slum dwellers of Dharavi with each family getting a space equivalent to 300 ft^2 in multi-storey apartments in exchange for their land. Second proposal is the main proposal. The planners propose to enhance the existing collective GDP of Dharavi from estimated $500 million to estimated $3.2 billion. It is also expected that exports will increase from its present value of $1 billion to $1.72 billion. Clearly the project uses space as a vital factor in enhancing and perpetuating inequalities in the city; indeed a big socio-economic and political problem. The third example, a starker example, also comes from Mumbai. It is about who owns how much space and inequalities resulting from such distributions? It is estimated that Antilla on Altamont Road in Mumbai has 27 storeys and 1,000,000 ft^2 of space for four persons. Economic inequalities are even wide spread. It is a matter of record that India's 100 richest people own assets equivalent to one-fourth of the GDP (Roy 2012; see Fig. 12.1 also). Along with a sustained focus on physical aspect of space, if student planners are also trained in deciphering and examining relative or relational spaces, it would surely benefit upcoming professional planners in designing new decision-making processes.

Fig. 12.1 Antilla: Mukesh Ambani's house in Mumbai

12.4.3 Identity and Recognition

Indian society undoubtedly revolves around caste and religion. Caste and religion affect human condition in India from cradle to grave. For instance, different cremation grounds are reserved for the caste Hindus and others particularly in rural areas throughout the country. While Muslims bury their dead, the Hindus burn their dead. At birth different rituals are followed by different religious groups. Town and country planning has generally not factored in caste and religion in their academia. Detractors may even argue that this has nothing to do with town and country planning. Silences about the institutions of caste and religion keep issues such as spatial segregation out of the preview of planning curriculum.

Identity is all about who we are and how we locate ourselves within a social context? It also means how society views an individual or a group? This means identity is relational that is all identities are defined with reference to self and the other (Penrose and Mole 2008, p. 276 after Massey 2004, p. 5). Noted political theorists Axel Honneth, Charles Taylor and Nancy Fraser view recognition as 'a vital human need' and part of the project of social justice. Nancy Fraser argues:

> Recognition from others is thus essential to the development of a sense of self. To be denied recognition – or to be 'misrecognised'—is to suffer both a distortion of one's relation to one's self and an injury to one's identity (Fraser 2000, p. 109).

Prior to Nancy Fraser, Charles Taylor has argued that "Non-recognition or mis-recognition … can be a form of oppression, imprisoning someone in a false, distorted, reduced or undermined mode of being. Beyond simple lack of respect, it can inflict a grievous wound, saddling people with crippling self-hatred. Due recognition is not just a courtesy but a vital human need" (Taylor 1992, p. 25). Axel Honneth argues that misrecognition is 'injurious because it impairs these persons in their positive understanding of self—an understanding acquired by inter-subjective means' (Honneth 1992, p. 189; also see Honneth 2004). Misrecognition is therefore, a form of cultural injustice. When cultural injustice gets institutionalized, cultural remedies are required, which could involve "recognizing and positively valorizing cultural diversity. More radically still, it could involve the wholesale transformation of societal patterns of representation, interpretation and communication in ways that would change everybody's sense of self" (Fraser 1995, p. 73).

Government has always accorded great importance to the issue of 'recognition'. The Constitution of India places great emphasis on differences of religion and gender and bars discrimination on the basis of such differences. At the same time provisions have been made in the Constitution for representation of socially vulnerable groups. Among others, the 73rd and 74th amendments to the Constitution stand out for exclusively providing seats on urban local bodies for women, SCs and STs with the intention of participation in decision-making and cultivating political leadership at the settlement level among these social groupings. Other statutes and policies are sensitive to difference particularly shelter policies such as VAMBAY (earlier Indira Awas Yojna) and the National Urban Housing and Habitat Policy,

2007. Having a house or a shelter for oneself adds to social recognition and status. Government is quite emphatic in its pledge to serve the interests of these deprived or backward communities:

> Special efforts for catering to the needs of Scheduled Castes, Scheduled Tribes, Other Backward Castes, minorities, disabled persons, slum dwellers, street vendors, other informal sector workers and the vulnerable sections of the society in relation to housing and access to basic services (National Urban Housing and Habitat Policy 2007, p. 14).

No doubt that government's intention to provide for the needs of these sections of our society is noble; and is a hall mark feature of democracy, a government for the people. However, it seems that this policy intention does more harm than good by unduly highlighting the differences leading to hatred and social conflicts. Earlier the Indira Awas Yojna, for example, has ended up creating ghettos of certain communities, which have traditionally been excluded from settlements inhabited by the so-called main stream society. To secure government funding for construction of a dwelling unit under the IAY remained an uphill task for members of the oppressed communities because of institutionalized discrimination, among other factors. Although this is an example from the rural sector, urban sector is not identity neutral as it is made out to be by scholars who emphasize on multiculturalism and anonymity in cities.

The fact is that we must understand that excessive emphasis on identity without creating institutional mechanisms to stop discrimination on the basis of same differences could lead to disastrous consequences. This happens because community groups excluded from such benefits resent the special privileges traditionally accruing to the beneficiary communities. Diversity does not always lead to positive consequences for the urban poor. Yiftachel et al. (2009) argue that recognition should be viewed as a multi-faceted socio-political process, with possibilities ranging from benign 'affirmative recognition', through 'marginalizing indifference', to 'oppressive hostile recognition'. Most urban poor living in slums and squatter settlements could be grouped under marginalizing indifference or oppressive hostile categories of recognition leading to partial or full exclusion from decision-making regimes facilitating shelter provision.

This raises another important social justice issue of redistribution and recognition (Fraser and Honneth 2003). While government has placed emphasis on redistribution of resources, stress is less than feeble on tacking the issue of misrecognition in urban policies. Misrecognition of individuals could cause unimaginable damage to vulnerable communities and slow down or even derail the process of development including social integration. But Indian planning schools and university departments teaching planning remain totally silent about these aspects of cities and villages.

However, the issue of social integration of low income and marginalized groups with the rest of the communities, which is also the stated intention of various master plans, remains unresolved. I regard that social integration requires much more than spatial proximity of the different kind of people. Inclusiveness does not depend on different people living at one place. Togetherness, belonging and integration is

evidently complex and relational. Take the example of the present squatter families living in the middle of the high and medium income communities. These higher income communities do benefit economically from the cheaper services being provided by housemaids, car washers, security men, and even grocers, barbers, etc. In return the poor also make limited economic gains, but insufficient to access decent education and medical services, leave aside basic sanitation and potable water. This could never be a simple win-win situation because just and integrated societies will have to create conditions whereby the poor, along with others, enjoy life with dignity based on the Central Human Capabilities (see Nussbaum 2003 for full exposition). Living together at the same place alone, even for decades, does not help in achieving social integration. Questions of identity persist; issues of caste and religion cannot be sidestepped; these must be confronted before any expectation of an early resolution. Exclusion of these issues from planning education is unhelpful for planning faculty and student planners and in the long run even planning practice because the lived and experienced city is not the rationally ordered city but divided on the basis of caste and religion.

Under the prevailing conditions of high economic inequality and long standing religious and caste barriers ingrained in the psyche of the people, lives of the urban poor run parallel to those of their richer neighbours without any hope of convergence. I believe that by implementing the Master Plan for Delhi, 2021 policies on low income housing, the poor perhaps may make marginal economic and social gains and may even begin to live slightly better lives. However, social integration may not be achieved solely through present physical planning policies because that requires one to confront social inequalities caused by religion and caste, which are not likely to be handled by physical determinism mores or measures. As Nancy Fraser has pointed out, "Recognition from others is thus essential to the development of a sense of self. To be denied recognition-or to be 'misrecognized' is to suffer both a distortion of one's relation to one's self and an injury to one's identity" (Fraser 2000; also see Talen 2006). It is argued that injustices suffered predominantly due to cultural misrecognition could be remedied by acting upon 'cultural-valuational structure' rather than 'political-economic redistribution'. Therefore, by solely relying on physical interventions intended at redistribution of resources such as land and housing, we may perhaps end up adding to the existing large army of, what some call 'the service population'. We could, however, make a reasonably good beginning by focusing on equality of opportunity in respect of primary and secondary education, and valued recognition of the differences of castes and religions along with equitable distribution of housing and land through statutory public policies. Access to a highly varied kind of modern skills, jobs and incomes may serve as the medium and long-term socially equalizing force.

Religion has caused partition of the country in 1947. Hundreds and thousands of people died during the partition. Debilitating impact of the partition still remains. But religious fundamentalists of various shades continue their divisive politics. Burning of Mumbai by goons of a particular community, and anti-Sikh riots in Delhi has caused much dismay throughout the country. Distrust of one religious community by the other has led to exclusion, oppression and disempowerment.

Endless exclusionary stances are being pursued by all political parties. For example, under the 'Operation Pushback' illegal immigrants were identified and some of them were deported to Bangladesh.

> Unsettled by this sweeping tide of Hindu chauvinism, a hurriedly enforced "Action Plan" to locate and identify these undocumented immigrants was followed by brisk efforts under "Operation Pushback" to deport them from New Delhi — India's capital city and locus of bureaucratic, political and financial power. Haphazard and sporadic in implementation, Operation Pushback, while unmasking partisan dispositions coursing through the Indian bureaucracy, also exemplified Congress' belated attempts at redeeming its enervated standing. It is also worth noting that the highly circumscribed material realities of the Bangladeshi immigrants residing in Delhi's numerous slums made them easy targets of these perverse politics, and that subsequent opposition, internally and from neighbouring Bangladesh, to the gratuitous brutality displayed towards the first groups of deportees contributed to the Operation's abrupt truncation (Ramachandran 2002).

Similarly, lower castes have been despised for centuries, and caste is used as an exclusionary mechanism to keep people of these communities away from any benefits of the public policies (Gupta 2007). Take a look at some of the latest instances. India's erstwhile Railway Minister and former Chief Minister of Bihar, Lalu Prasad Yadav, a long time Lok Sabha Member of Parliament was denied membership of a prestigious social club in Delhi because he did not fit the social profile of its members. A dalit president of a panchayat of a village in Madurai district in Tamilnadu was auctioned and sold for Rs. 25,000 to a higher caste person of the same village for daring to become peoples' representative. Breaking 300 year old ban when *dalits* entered a Jagannath Temple at Keredagada village of Kendrapada district in Orissa, angry upper caste villagers purified the shrine with the full support of the priests who went on strike. Four of a dalit family were brutally tortured and murdered in Khairlanji village of Bhandara district in Maharashtra. A dalit colony in Haryana was burnt with the sanction of a caste panchayat because a dalit youth had an altercation with a higher caste photographer who made some indecent remarks about his wife. It was also in Haryana that *dalit* youths were slaughtered on suspicion of killing a cow. Out of numerous such incidents throughout the country, these are only those cases, which get highlighted and reported in the media. Why this happens? To begin with, one might argue that these are law enforcement problems; but ultimately these are social problems of lack of trustful interactions between diverse communities. Laws may bring few individuals to book, but developing India's dream of becoming a multi-cultural country could be achieved only if communities interact with each other on a regular basis under the conditions of mutual respect and trust. Planning arenas where decisions on construction of physical spaces and by implication social spaces are taken on the basis of real participatory democracy and could contribute a great deal by creating inclusive and non-exclusionary spaces such as the India International Center from where the central minister was barred.

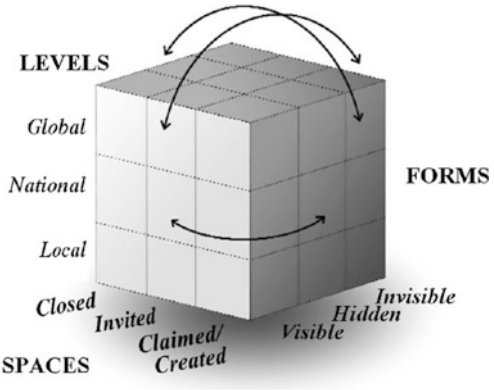
12.4.4 Power and Planning

Ritualistically, planning educators talk about powerlessness of planning. Power being complicated and complex area; planning educators generally do not discuss it as part of the curriculum neither at undergraduate level nor at postgraduate level. Power is generally referred to as an ability of a person or a collective to influence behaviour of a person or collective in accomplishing some task. With Lefebvre, I regard that power and space are related to one another and space also exercises power and is a means of domination (See Table 12.4).

Table 12.4 Forms of power

Visible power: observable decision-making This level includes the visible and definable aspects of political power—the formal rules, structures, authorities, institutions and procedures of decision-making … Strategies that target this level are usually trying to change the 'who, how and what' of policymaking so that the policy process is more democratic and accountable, and serves the needs and rights of people and the survival of the planet
Hidden power: setting the political agenda Certain powerful people and institutions maintain their influence by controlling who gets to the decision-making table and what gets on the agenda. These dynamics operate at many levels to exclude and devalue the concerns and representation of other less powerful groups … Empowering advocacy strategies that focus on strengthening organizations and movements of the poor can build the collective power of numbers and new leadership to influence the way the political agenda is shaped and increase the visibility and legitimacy of their issues, voice and demands
Invisible power: shaping meaning and what is acceptable Probably the most insidious of the three dimensions of power, invisible power shapes the psychological and ideological boundaries of participation. Significant problems and issues are not only kept from the decision-making table, but also from the minds and consciousness of the different players involved, even those directly affected by the problem. By influencing how individuals think about their place in the world, this level of power shapes people's beliefs, sense of self and acceptance of the status quo—even their own superiority or inferiority. Processes of socialization, culture and ideology perpetuate exclusion and inequality by defining what is normal, acceptable and safe. Change strategies in this area target social and political culture as well as individual consciousness to transform the way people perceive themselves and those around them, and how they envisage future possibilities and alternatives

Source Adapted by Just Associates from VeneKlasen and Miller (2002) after Gaventa (2006, p. 29)



Source: Gaventa (2006: 25).

Fig. 12.2 The 'power cube': the levels, spaces and forms of power

Gaventa argues that power is complex and unstable and compares to a Steven Lukes' power cube. As soon as changes are made at any dimension (spaces, forms and levels), nature of power changes and new and variegated relationships get established between diverse aspects of spaces, forms and levels (see Fig. 12.2).

12.5 Conclusions

Comprehension of silences is as important as comprehension of discourses. Strategic exclusion of certain aspects of planning in the form of silences from planning education generally and planning theory specifically has underplayed complexities of social diversities, spatial manifestations of injustices and power, and public participation. Silences in planning theory are under-theorized and under-discussed globally. Jürgen Habermas constructed the theory of discourse ethics, and showed that communication under appropriate could positively contribute to debate, deliberations and even production of relevant knowledge (Healey 1997). Likewise planning theorists need to construct a theory of silences with the ethics of silences. Inclusion of silences in planning education could include those views in planning, which have so far remained muted and even shut out. In the case of India, inclusion of silences pertaining to caste, religion, and socially constructed regions (like Mumbai versus north Indian crowding the city and grabbing their jobs) by planning schools could potentially transform planning education and with that the future planning practices.

References

Amruth, M. (2007). Silences and the impossibility of confabulation after Godhra. *Economic and Political Weekly, XLII*(49), 23–25.

Arnstein, S. R. (1969). A Ladder of citizen participation. *Journal of the American Planning Association, 35*(4), 216–224.

Bidwai, P. (2006). The Great Land Grab. *Frontline, 23*(18), 9.

Carp, J. (2008). "Ground-Truthing" representations of social space, using Lefebvre's conceptual triad. *Journal of Planning and Research, 28*, 129–142.

Foucault, M. (1984). Space, knowledge, and power. In Paul Rabinow (Ed.), *The foucault reader* (pp. 239–256). New York: Pantheon.

Foucault, M. (1986). Of other spaces. Diacritics*, 16*.

Fraser, N. (1995). From redistribution to recognition? Dilemmas of justice in 'Post-Socialist' age. *New Left Review, I/212*, 68–93.

Fraser, N. (2000). Rethinking recognition. *New Left Review, 3*, 107–120.

Fraser, N., & Honneth, A. (2003). *Redistribution or recognition: a political-philosophical exchange*. London: Verso Books.

Gaventa, J. (2006). Finding the space for change: a power analysis. *IDS Bulletin, 37*(6), 23–33.

Government of India (2005). *Special Economic Zones Act, 2005*. Ministry of Law and Justice, Government of India, New Delhi.

Government of India (2006). *Special Economic Zones Rules, 2006*. Ministry of Commerce and Industry, Government of India, New Delhi.

Gupta, D. (2007). *Interrogating caste*. New Delhi: Penguin Books.

Harvey, D. (2006). *Spaces of Global Capitalism*. Verso, London.

Healey, P. (1997). *Collaborative planning: shaping places in fragmented societies*. London: Macmillan.

Honneth, A. (2004). Recognition and justice, outline of a plural theory of justice. *Political Theory, 47*(4), 351–364.

Honneth, A. (1992). Integrity and disrespect: principles of a conception of morality based on the theory of recognition. *Political Theory, 20*(2), 187–201.

Lefebvre, H. (1991). *The production of space*. London: Blackwell.

Massey, D. (2004). Geographies of Responsibility. *Geografiska Annaler, 86*(B), 5–18.

Ministry of Housing and Urban Poverty Alleviation (2007). *National Urban Housing and Habitat Policy 2007*. Ministry of Housing and Urban Poverty Alleviation, Government of India, New Delhi.

Nussbaum, M. (2003). Capabilities as fundamental entitlements: sen and social justice. *Feminist Economics, 9*(2/3), 33–59.

Penrose, J., & Mole, R. C. M. (2008). Nation-state and national identity. In K. R. Cox, M. Low, & J. Robinson (Eds.), *The sage handbook of political geography*. London: Sage.

Ramachandran, S. (2002). "Operation Pushback": *Sangh Parivar*, State, Slums and Surreptitious Bangladeshis in New Delhi. *Singapore Journal of Tropical Geography, 23*(3), 311–332.

Roy, A. (2012). Capitalism: a ghost story. *Outlook*, 26 March 2012.

Sandercock, L. (2000). When strangers become neighbours: managing cities of difference. *Planning Theory and Practice, 1*(1), 13–30.

Sandercock, L. (2003). *Cosmopolis II: Mongrel Cities in the 21st Century*. Continuum, London.

Soja, E. (1999). History: geography: modernity. In Simon During (Ed.), *The cultural studies reader*. London: Routledge.

Talen, E. (2006). Design that enables diversity: the complications of a planning ideal. *Journal of Planning Literature, 20*(3), 233–249.

Taylor, C. (1992). *Multiculturalism and the politics of recognition*. Princeton, NJ: Princeton University Press.

Vasudevan, A., McFarlane, C., & Jeffrey, A. (2008). Spaces of enclosure. *Geoforum*, 39, 1641–1646.

VeneKlasen, L., & Miller, B. (2002). Power and Empowerment. *PLA Notes*, *43*, 39–41.
Vinitzky-Seroussi, V., & Teeger, C. (2010). Unpacking the unspoken: silence in collective memory and forgetting. *Social Forces, 88*(3), 1103–1122.
Winter, J. (2010). Thinking about Silence. In E. Ben-Ze'ev, R. Ginio, & J. Winter (Eds.), *Shadows of war: a social history of silence in the twentieth century*. Cambridge: Cambridge University Press.
Yiftachel, O., Goldhaber, R., & Nuriel, R. (2009). Urban justice and recognition, affirmation and hostility in Beer Sheva. In P. Marcuse, J. Connolly, J. Novy, I. Olivo, C. Potter, & J. Steil (Eds.), *Searching for the just city, debates in urban theory and practice*. New York: Routledge.

Chapter 13
Ethics and Planning Education in India

Poonam Prakash

Abstract In the profession of planning, a highly political activity, decisions invariably entail ethical decisions. The sensitization of students toward ethical dilemmas has become more critical as increasing urbanization and large agglomerations require more complex decision making for development. With many actors intervening in planning decisions, planning practice today faces many pressures particularly in the context of privatization and real estate interests influencing decisions related with land use, development controls, etc. This paper, in the first section, provides an introduction to professional ethics. In planning education, articulation of professional ethics is through the syllabi. It reviews syllabi of undergraduate program of selected planning institutes. Many of the curricula invariably include a course on professional practice with a module on code of conduct. Discussion on ethics is not easy because it can easily degenerate into a cliché' on one hand and is extremely challenging to incorporate into every day life on the other. This is particularly true when the social context in which the planning education and profession is situated places insignificant importance to the question of values. Third section with the help of examples from plan making of Delhi highlights the context of practice and the challenges this practice imposes on teaching of planning ethics. Fourth section suggests moving from mere familiarity to code of conduct to much more intensive teaching of ethics through experiential learning and case study method for the students to develop skills to undertake ethical decision making. This paper concludes that for planning to gain more legitimacy as a profession in the present context, planning education needs to give greater importance to the question of ethics in planning in India and suggests an approach to teaching of professional ethics.

Keywords Planning practice · Ethics · India · Planning education

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13.1 Introduction

The word ethics is derived from the Greek 'ethos' (character), and from the Latin word 'mores' (customs). According to Campbell (2012) ethics is about making choices. These choices are such where simplistic distinction between right and wrong does not apply. These could be choices between one right over the other or between harm to one group over harm to other group. These choices imply decisions being made. Implicit in all decision making is the notion of right and wrong based on what we term as values. These choices are being made at all levels; individual, group, and society.

Professional ethics are considered more than individual ethics. Professions are generally identified by three characteristics: the provision of an important service to the society, the possession of special knowledge requiring some higher education, and the existence of an organization or self regulation (Bayles 1986). Once you become part of profession fraternity, there is generally agreed purpose or teleos (Kaufman 1987). Professional ethics is concerned about the processes of construction of moral meanings for an agreed purpose (Bolan 1983). According to Bayles (1986), professional ethics are group of norms that define how a professional should behave in his/her professional activity. It is some agreed set of values. This agreed purpose is for the provision of some public service like justice, health, and education. Society gives power and autonomy to professions by virtue of their expertise and service that a professional is expected to provide to the society. This autonomy and legitimacy by the society also thrusts upon professions much greater responsibility. For this reason, professionals are expected to adhere to higher code of ethics than a common citizen. Professions are usually governed by a code of conduct defining the values and behavior professionals are expected to adhere to.

A professional training requires the professional to understand this commonly agreed set of values of profession, role of a professional in society, her responsibilities, and obligation. Teaching values and ethics is a difficult exercise in any profession for the reason that it can easily turn into a cliché about moral values.

Teaching professional ethics in planning presents additional challenges unique to it. Some of these are internal to the profession. First and foremost, there is an ongoing debate questioning legitimacy of planning as a profession. Planning activity is said to be embedded in state machinery, thus not seen as an independent and autonomous activity. It is also said that there does not exist a systematic body of knowledge which can be uniquely be ascribed to planning. Second, the code of conduct in planning profession is unable to define the commonly agreed purpose of the profession (Taylor 1992). Unlike in law or medicine where agreed purpose is to work toward justice or promote health, code of conduct in planning profession is unable to provide a commonly agreed purpose. For example, the code of conduct of the Institute of Town Planners India states that 'basic objective of planning is to promote general welfare.' This general welfare is to be achieved through comprehensive arrangement of land uses. In addition to this general statement of purpose, the code of conduct provides a brief two-page framework for ethical practice and decision making in planning. Next section reviews how the idea of professional

ethics drawing from the code of conduct is articulated in some of the selected plan schools in India.

In addition to the internal challenges to teaching of professional ethics, the external context of planning practice is changing rapidly. Nature of this change and its implications are discussed briefly in the third section. This section provides a glimpse of some of the planning decisions and values that were inherent in these decisions. Fourth section suggests moving beyond cognitive knowledge of ethics to a more experiential knowledge to develop an ability of ethical decision making.

13.2 Professional Ethics and Planning Curriculum in India

In India with about fourteen planning schools, a course on professional practice is part of all the fourteen planning schools. Teaching of ethics is generally restricted to teaching of code of conduct as given by the Institute of Town Planners India. Table 13.1 compares the syllabus on professional ethics as given by the All India council of Technical Education and three schools of planning specifically for the undergraduate planning program.

All India Technical Council of Education, which regulates technical education in India, has prepared a model curriculum for undergraduate and postgraduate program in planning (AICTE 2008, 2012). In the postgraduate program, embedded as part of professional practice unit, professional ethics is covered through the code of conduct in the model syllabus. At the undergraduate level, in the eighth semester the model syllabus recommends two courses: 'Planning Practice II' and 'Human Values in Planning'.[1] One of the units in Planning Practice II titled 'Organization, Scope and Scale of Charges' includes as one of the topics on 'professional roles and responsibilities of planning consultants; professional ethics; responsibilities toward clients, fellow professionals and general public.' Second course on 'Human Values in Planning' is a course which focuses more on moral reasoning and idea of values. It would have been useful if this course was a precursor to the course on Planning Practice II, as students would then have a basis in personal ethics before moving on to professional ethics.

The School of Planning and Architecture, New Delhi started first undergraduate course in planning in India in 1989. In addition to the School in Delhi, the Government of India started two more Schools of Planning and Architecture in Bhopal and Vijayawada. In 2014, the parliament passed an Act under which these Schools have been given a status of Institute of National Importance.

As can be seen from the table all the three institutes include role and responsibilities of professionals which would require much greater articulation in detail

[1]Introduction of subject 'Human Values in Planning' was a part of a requirement by the Ministry of Human Resource Development to introduce value education at all levels including higher education. Most of the engineering colleges introduced this subject.

Table 13.1 Course content related to professional ethics as given in the AICTE and SPA syllabi

AICTE	SPA, Delhi 1996	SPA, Delhi 2015	SPA, Bhopal	SPA, Vijayawada 2011[a]
Planning practice II	**Professional practice**	**Planning practice I**	**Professional practice**	**Planning Practice II**
Unit 2: Organisation, Scope and Scale of Charges Professional roles and responsibilities of planning consultants; professional ethics; responsibilities toward clients, fellow professionals, and general public	*Unit 2: Organisation, Scope and Scale of Charges* Professional roles and responsibilities of planning consultants; professional ethics; responsibilities toward clients, fellow professionals, and general public	*Unit 2: Nature of Planning Practice* Planning as a profession and Role of a Planner, Definition of profession, planning as a profession, role of planner in the society, different roles of planner in practice	*Unit 5: Ethics* Canons of ethics; Ethics of virtue; Ethics of duty; Ethics of responsibility; Work ethics; Professional ethics; Ethics in planning profession, research, and education	*Unit 2: Organisation, Scope and Scale of Charges* Professional roles and responsibilities of planning consultants; professional ethics; responsibilities toward clients, fellow professionals, and general public
Human values in planning		**Planning practice II**		**Evolution of Human Society, Culture and Settlements**
The objective of the course is an exploration of human values, which go into making a 'good' human being, a 'good' professional, a 'good' society, and a 'good life.' The context is the work life and the personal life of modern Indian professionals *Unit 1: Nature of Values* *Unit 2: Values and Science and Technology* *Unit 3: Types of Values*		*Unit 1: Ethical Planning Practice* Human values and moral reasoning, Planning practice and ethical dilemmas, resolution of ethical dilemmas, code of professional conduct, public sector planner, and conduct rules		*Unit 5: Values and Ethics in Profession* The value crisis in the contemporary Indian Society; The nature of values: the value spectrum for a good life; The Indian system of values; Values in planning profession, research and education. Psychological values, Societal values, Esthetic values, Spiritual values,

(continued)

Table 13.1 (continued)

AICTE	SPA, Delhi 1996	SPA, Delhi 2015	SPA, Bhopal	SPA, Vijayawada 2011[a]
Unit 4: Ethics Canons of ethics; ethics of virtue; ethics of duty; ethics of responsibility; Work ethics; Professional ethics; Ethics in planning profession, research and education *Unit 5: Values and Managements*				Relative and absolute values, human values; Canons of ethics; ethics of virtue; ethics of duty; ethics of responsibility; Work ethics; Professional ethics; Ethics in planning profession, research and education.

[a]In the revised syllabus of SPA Vijayawada started from 2015, there is only one course on Professional Practice in which one of the units is titled The Profession, Roles, Responsibilities and Ethics

Source Compiled from various syllabi of planning schools (2015) and Model Curriculum of AICTE

lesson plans for it to go beyond code of conduct. All the syllabi also adapt from AICTE syllabus for 'Human Values in Planning.' In addition, SPA, Delhi in its revised syllabus has introduced topic on ethical dilemmas. There appears to be an increased emphasis on teaching of values in higher education as given in the syllabus. However, the external context of planning practice from which teaching of ethics would draw from and method of teaching ethics continue to be critical factors as discussed in the following sections.

13.3 Current Context of Planning Practice

In the last few years, there has been much greater awareness about and emphasis on urban planning. Three factors seem instrumental for this: Rapid pace of urbanization resulting in large agglomerations and increasing complexity of managing cities, increasing private investment and technological changes, and large-scale unplanned development, poverty, and squalor particularly in large cities. This emphasis is resulting in demand for new forms of planning which can be seen in policy and mission documents of the government like JnNURM and now the Smart Cities mission. Contours of these new forms of planning seem to include increased involvement of private sector in general including low-income housing provision and relaxation of existing norms and standards.

I would like to argue, with the help of examples from planning in Delhi, that while there might be greater emphasis on planning in policy documents, the practice of planning demonstrates a disquieting trend that is bringing to question the fundamental values of planning.

An ethical decision takes into account complex facts of a situation and choices being made keeping in mind the hierarchical nature of values. It may not always be a conscious process since ethical decisions are embedded in multilayered world.

Planning ethics is classified in variety of ways. It can be classified as procedural aspects like conflict of interest, etc., or substantive issues like protection of environment. Campbell (Campbell and Marshall 1998) also identifies two strands of planning ethics one that talks about universal values like truth, honesty, etc. and other which focuses on procedures. Hendler identifies five areas of planning ethics: everyday behavior, plan making, administrative discretion, planning techniques, and normative planning theory. Everyday behavior would include among others: avoiding conflict of interest; maintaining appropriate relationships with clients, employees, and colleagues; advertising one's services in certain manners, etc. Plan making would include "that part of planning having to do with the development, implementation, monitoring, and evaluation of plans, programs, and policies. Together, these sorts of normative statements have ethical implications in that certain amenities or disamenities are distributed or redistributed among citizens (and nonhuman components of our environments) in ways that benefit certain individuals or groups and impose costs on others" (Hendler 2001, p. 11475). Administrative discretion includes the role that a professional chooses for herself.

This may be of advocate or technician or some other role. Planners have to be careful about the role that they choose and the discretion in terms of their affiliation with different groups needs to be considered. Planning techniques would mean selection of methods, models, and data analysis and implicit values in such decisions. Finally, the normative planning theory would be concerned about the issues of what should the profession of planning profess.

Origin of planning is rooted in health and safety concerns arising out of industrialization process particularly for people residing in slums at that time. Ensuring health and safety through location and distribution of activities and special care of the disadvantaged can be said to be two of the fundamental and substantive values of the planning profession. Through the examples of planning in Delhi, I highlight how these values are compromised specifically focusing on the plan making.

Delhi is one of the three megalopolis of India with a population of about 17 million. It is projected that by 2021 the population of the city will be about 23 million (MoUD 2007). Planning in the city is under the Delhi Development Act of 1957 and the first plan for the city was prepared in 1962 for a perspective year of 1981, which was revised for the perspective year of 2001 and the current revision was notified in 2007 for a perspective year of 2021. A master plan review process was initiated in 2011. Among many modifications made in the plan, I would particularly like to highlight the trend toward regularization in the current revision of plan.

13.3.1 Regularization of Commercial Activity in Residential Areas[2]

Most of the Indian cities are characterized by the presence of commercial use in residential plots. The issue of permissibility of such activities at residential premise level is usually permitted in a very restrictive manner. Permissibility of commercial activities in the residential areas requires safeguarding the nuisance value of such an activity while also being sensitive to the advantages of working from home. In 2006 Supreme Court of India ordered closure of such streets that were not permitted according to the Master Plan of Delhi 2001. In response to this order and through a many step maneuvering, the MPD 2021 included a chapter on Mix Land Use. The first paragraphs of the chapter stated that

> The policy acknowledges the need for permitting use of land for *purposes other than that for which it was originally envisaged* and lays down the conditions under which this may be applied in different situations (MoUD 2007, p. 111) (emphasis added).

This plan modification not only legitimized developments outside the plan but also was so framed that the burden of such permissibility in terms of infrastructure

[2]These two sections of the paper are taken from a paper presented in APSA conference 2015 in Johor Bahru, Malaysia.

and parking increased on those areas, which were already severely constrained by the infrastructure. As part of this modification, 2,183 streets notified by the state government where these activities were already existing and were incorporated in the Plan (MoUD 2007, p. 112).

13.3.2 Enhancement of Development Controls

A similar process of regularization was also visible in enhancement of development controls particularly ground coverage and floor area ratio. In Delhi every year there are incidents of building collapse and deaths. In most of the cases these buildings are either violating the development controls or are constructed in areas without any planning permission. There has been repeated move to regularize settlements without planning permission as well as regularize buildings constructed beyond permissible development controls.

Development controls are one of the instruments for regulating development. The revised plan for Delhi initially allowed for 90 % ground coverage for smallest plots (Table 13.2). Of particular interest in this table are the notes, which acknowledge regularization and allowance of 100 % ground coverage. This is perhaps one of the only examples available where permitted floor area ratio of a residential plot is more than group housing as well as commercial and by law allows for 100 % ground coverage.

Table 13.2 Ground coverage and floor area ratio for plotted residential development

S. No.	Area of plot (m^2)	Max. ground coverage %	FAR	Number of DUs
1	Below 32[c]	90[a]	350	3
2	Above 32–50	90[a]	350	3
3	Above 50–100	90[a]	350	4
4	Above 100–250	75[b]	300[b]	4
5	Above 250–750	75	225	6
6	Above 750–1000	50	150	9
7	Above 1000–1500	40	120	9
8	Above 1500–2250	40	120	12
9	Above 2250–3000	40	120	15
10	Above 3000–3750	40	120	18
11	Above 3750	40	120	21

Source Ministry of Urban Development (2007) Delhi Master Plan, Chap. 4.0 shelter, p. 26

[a]100 % ground coverage shall be eligible for regularization of construction, already existing as on September 22, 2006 on payment of charges as notified

[b]Minimum size of the residential plot shall be 32 m^2. However, in case of Government sponsored economically weaker section schemes, size could be reduced further

[c]100 % ground coverage and 350 FAR shall be eligible for regularization of construction already existing as on 22.09.06 on payment of charges as per the notification, with respect to plot size between 100 and 175 m^2

13.3.3 Regularization of Unauthorized Colonies and Farm Houses

Unauthorized colonies are those settlements that are illegally subdivided by a colonizer on an agricultural land and do not have a planning permission. The layout also does not follow minimum standards of facilities and circulation. There areas are of two types: Unauthorized colonies, which are catering to lower income group families with small plots and minimum facilities. There are also such areas, which have developed illegally as large 'farm houses' on the periphery.

> For unauthorized colonies having small plots the plan states 'in all unauthorized colonies, whether on private or public land, *regularization should be done as per the government orders* issued from time to time. It must be ensured that for improvement of physical and social infrastructure, the *minimum necessary/feasible level* of services and community facilities are provided' (DDA 2014, pp. 18–10) (emphasis added).

Such provisions disguised the non-implementation of the plan provisions for low-income housing as well as provided justifications for differential facility provisions for almost 30 % of the population.

The situation becomes much more serious when such a regularization is carried for farmhouses in the guise of 'low density residential plot.' The majority of farmhouses in the urban extension areas are located on lands where ground water has already been severely depleted or close to such depletion. Further, intensification of residential density and heavy additional load on civic infrastructures such as water supply, drainage, sewerage, parking, etc. is highly undesirable in such areas from environmental considerations. Therefore, villages containing existing farmhouses clusters are notified as "Low Density Residential Area" (ibid, pp. 4–5).

While in its introduction of such a category it took cover of environmental considerations to justify large farmhouses on the periphery of the city owned by various rich and powerful individuals, the definition of low residential density plot was defined as follows:

> Existing farm houses in urban extension regularized as per policy and new Low Density Residential Plots to be permitted in the green belt and in Low Density Residential Area" *(emphasis added).* Planning implications of such modification is huge.

13.3.4 Differential Facility Provisions and Density Norms for Low-Income Families

The 2021 plan for Delhi significantly reduced the provisions for low-income housing. These reduced provisions were further modified and the differential can be seen in the following in terms of densities:

"As the development of housing in new area or redevelopment of existing housing stock in built up area to be taken by the Public Agencies, Society or private developers

the upper limit of density be taken as 200 DUs/ha. (900pph) … The density for Slum and JJ clusters (In-situ up-gradation/ Rehabilitation/ Redevelopment of Slum and JJ Clusters, Resettlement Colonies) and EWS Public Housing Schemes is maximum 900 DUs" (DDA 2014, pp. 4–3).

The densities for poorer sections of the society were four times that of rest of the income groups and this was coupled with reduced facility provisions for the poor in terms of schools, open spaces, and parking provision.

The processes of these modifications were many a times a response to circumvent implementation of court orders as in case of commercial permissibility and farm houses or to facilitate private developers as in case of high densities and lower facility norms for low-income housing.

In each of these examples a choice has been made. Influenced by different sets of actors, these choices seem to take into account short-term implications instead of long-term, have ignored comprehensive nature of planning, are detrimental to health and safety of its citizens, and discriminate against the disadvantaged sections of the society. These examples demonstrate in a very limited way the substantive values of planning that are becoming increasingly difficult to protect and practice. Teaching ethics thus in such a context is a hugely challenging task.

13.4 Teaching Professional Ethics

As mentioned in earlier section on curriculum, there is increased emphasis on ethics in curriculum. Teaching of ethics, however, is primarily limited to achieving the objective of familiarity (through code of conduct) and now ethical sensitivity through theories of moral reasoning. In this section, I would like to argue that cognitive knowledge of values can be an important first step but is not enough for effectively dealing with issues of professional ethics. Teaching about code of conduct, like the Ten Commandments, tells a professional to be honest but it does not necessarily make them honest. Similarly, the code of conduct has competing values and a choice has to be made. For example, the code of conduct requires honesty as well as confidentiality as a value. A simple familiarity with the code without case studies will not be of help.

Similarly, theories of moral reasoning make the student more sensitive and inform him about different ways of moral reasoning. However, its application in real-life situation would require a degree of self-awareness about one's own value system. In the absence of such awareness or reflection, different theories of moral reasoning can leave a student more confused.

If the purpose of the course is to develop familiarity toward issue of ethics, then an introduction to code of conduct might suffice the purpose. However, this may not lead to students being able to develop connections between abstract code of conduct and concrete situations. Introduction to moral reasoning and use of case studies can enhance and generate greater awareness and consciousness toward ethical issues but this still may not equip them how to deal with an ethical dilemma. Objective of the

course thus should be to develop the ability for ethical decision making and not just making them familiar or sensitive.

Developing ethical decision making skills can be approached through a combination of experiential learning and case study method. It is important for the students to be aware of their own value system, the hierarchical nature of value decisions and rationalizations toward uncomfortable situations and knowledges. Experiential learning can be an effective method for initiating such a process of self-awareness.

Simultaneous to self-awareness, a case study method which allows them to identify ethical dilemmas in the situation considers various options and consequences of such options and making a choice based on their own value system can be useful.

13.5 Conclusions

From the discussion in previous sections, it can be seen that there is a greater recognition of ethical practice in planning but the challenges of teaching ethical practice are manifold. The external context of planning practice is not conducive to teaching of planning ethics. Currently, there is a denial of the value-based nature of planning practice and it has led planners to be part of decisions which are contrary to the values planning profession is supposed to uphold. Teaching of planning ethics should not be limited to a familiarity with code of conduct but a much more intense training through case studies of ethical dilemmas and self-awareness of one's own value system.

References

AICTE. (2008). *Model curriculum for undergraduate programme in town planning*. New Delhi: AICTE.

AICTE. (2012). *Model curriculum for undergraduate programme in town planning*. New Delhi: AICTE.

Bayles, M. D. (1986). Professional power and self regulation. *Business and Professional Ethics Journal, 5*(2), 26–46.

Bolan, R. S. (1983). The structure of ethical choice in planning practice. *Journal of Planning Education and Research, 3*(1), 23–34.

Campbell, H. (2012). Planning ethics and rediscovering the idea of planning. *Planning Theory, 11*(4), 379–399.

Campbell, H., & Marshall, R. (1998). Utilitarianism's Bad Breath? A Re-evaluation of the public interest justification for planning. *Planning Theory, 1*(2), 163–187.

Delhi Development Authority. (2014). *Master Plan for Delhi-2021 (incorporating modifications upto March 2014), draft compilation for reference only*. New Delhi: Delhi Development Authority.

Government of India. (2014). *The National Capital Territories of Delhi (Special Provisions) Act, 2014*. New Delhi: Government of India.

Hendler, S. (2001). *Planning ethics*. International Encyclopaedia of Social and Behavioural Sciences: Elsevier.

Kaufman, J. L. (1987). Teaching planning students about strategising, boundary spanning and ethics—Part of the new planning theory. *Journal of Planning Education and Research, 6*(2), 108–115.

Ministry of Urban Development. (2007). *Master Plan for Delhi-2021*. New Delhi: Government of India.

Taylor, N. (1992). Professional ethics in town planning: What is a code of professional conduct for? *The Town Planning Review, 63*(3), 227–241.

Chapter 14
Relationship Between Planning Education and Planning Profession After the Market Reforms

Nitin Saolapurkar

Abstract India opened up its economy to the world markets in the early 1990s. Invitation to global capital has impacted Indian economy positively as economic growth has sustained itself at a higher trajectory since the past two and half decades. Impacts of economic openness have been also felt in the planning field including planning education. After a rapid overview of the Indian urbanization, and shortcomings of the existing planning education system, this chapter explores possibilities of transformations in urban planning education with a particular focus on public–private partnerships.

Keywords Global markets · Public–private partnerships · Modernist planning · Infrastructure development

14.1 Introduction

Planning is as old as civilization itself. The civilizations of the Harappa, Mohen-jo-Daro, the Roman, and the Egyptian civilizations are highly acclaimed and respected on account of planning principles embedded in settlements that they built. In the course of ancient civilizations, planning evolved from requirements of the state, and planners were largely artists and architects. While architecture, art, and warfare were defined professions, planning was more of an extension and outcome from the collective experience of these other professions.

It is only with the advent of the Renaissance Age from 1642 to 1850 when new materials were invented and later as the Industrial Revolution unfolded with manufacturing as its economic driver that cities grew due to migration and took a turn as never experienced before. The result was chaos, which became unmanageable leading to outbreak of epidemics, fires, crimes, and led to changes in social order. All of this called for a change of approach both in society and in administration.

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It changed life of city inhabitants and with the new social order, the state felt the pressing need for urban planning. New theories on town planning like the 'Garden City' approach developed and model towns were planned based on work-home concept. This pointed toward a need for planners and their training through formal education. But planning as a profession was not conceived much later in the early 1900s.

Concomitant with the new inventions in long distance transportation like railways, automobiles, and the corresponding spread of urbanism, this resulted in a slow but steady convergence between the demand to decongest and plan cities and the need for governments to take up planning of towns leading to establishing a relationship between planning as a professional practice and planning education as a discipline in its own right. This chapter examines the nature of planning education after the market reforms that were introduced in early 1990s. Before I do this, a quick overview of planning education in India is provided.

14.2 The Indian Scenario

As a British colony during the time of Industrial Revolution, Indian towns, majorly the large towns like Delhi, Kolkata, Mumbai, and Chennai were able to fulfill economic and political needs of the British colonial powers. While it facilitated capital accumulation in England, industrial revolution also made cities places full of disease due to overcrowding and lack of sanitation facilities in the wake of low wages. Similarly Industrial Revolution also led to disease, inequalities, sanitation deprivation in Indian cities as the colonial powers would not invest in basic infrastructure of cities.

But Industrial Revolution contributed to India's transportation and economic development, notwithstanding the fact that this was meant to exploit Indian resources for meeting needs of the capital in England. Among these transformations were the first railway line started by the British from Thane to Mumbai, development of ports in Kolkata and Chennai, and Delhi being the capital city and seat of the Viceroy, it was planned as a new city by Edwin Lutyens and Herbert Baker. New Delhi was built alongside the old city, now called Old Delhi (Asia Society 2012; also see Architecture of Delhi—Delhi-City in Conflict 2013).

The British of course took up planning in only those metro cities that were of necessity to the achievement of their objectives. The other cities did not see any economic and social development. The lop sided development led to migrations from rural to urban areas, in search of better livelihood and the process of urbanisation set in, in our country.

As India progressed toward independence, many industries were established and cities started growing in size due to migration from hinterlands in search of economic opportunities. After having won freedom in 1947, the country's endeavour of framing policies and priorities was based on a socialist model of development where the state would play a critical role in industrializing the country and even

building new cities. Under this establishment, government machinery worked hard to bring about economic changes, and social uplift took precedence over free market competition. Government provided infrastructure, established schools, colleges, and build cities. Administering of these systems at a very basic level became a major challenge. Availability of various streams of education and specialization was very limited. Higher technical institutions like IITs and IIM got started during this period with the help of foreign countries. Banking system was consolidated and most of all few planning institutions were also started during this time beginning in the mid-1950s.

14.3 Town Planning Education in India

Immediately after independence, education in town planning received low or no priority. Starting of planning institutions, as everything else happened during those days, became the responsibility of government with little public or private participation. The need for education in planning was being felt due to migration and consequent growth of cities and towns. It was in 1955 that the ITPI first took the initiative and commenced conducting Associateship Examination through its board, which was considered equivalent to a postgraduate degree in planning for government jobs. Many schools did come up with postgraduate education in planning thereafter, but planning as a professional discipline remained at a postgraduate level until 1989, when SPA New Delhi followed by the Guru Ramdas School of Planning and Architecture of Guru Nanak Dev University, Amritsar started a full time Bachelor of Planning degree course. A new era began with undergraduate planning education in India giving the discipline of planning a much needed push and recognition.

Steadily, more educational institutions imparting education in planning in India were established in the public as well as the private sector. Today India has 21 schools imparting postgraduate education in planning and five schools imparting undergraduate planning education (see Table 14.1).

However, the total turnout of planners graduating from these schools is only about 600 numbers, which for a country like India, which is on a rapid growth path, is miniscule. Today apart from 5 mega polis, we have 53 metropolitan cities with population over 1,000,000, 468 Class I towns, and 384 Class II towns (Census of India 2011). All these towns are growing in population and in their need for quality infrastructure. Planning is required for every development aspect of the city. If legislative and planning controls are not put in place, Indian city will change and evolve continuously but mostly in a chaotic manner. Legislation alone cannot control the city growth. Legislation also has to be sensitive to changes. Legislation at best can act as a restrictive measure for uncontrolled growth in towns and cities. It is physical planning combined with legislation that is an effective tool for control and orderly development. This implies a demand for a large number of town

Table 14.1 Planning schools and other planning institutes in India, 2014

S. No.	Name of the school	Location	Undergraduate	Postgraduate
1	University of Mysore	Mysore, Karnataka	Not offered	Master of Urban and Regional Planning
2	School of Planning, Bhaikaka Centre for Human Settlements, APIED	Vallabh Vidyanagar, Anand, Gujarat	Not offered	Master of Urban Planning
3	School of Planning and Architecture, Vijayawada	Vijayawada, AP	Bachelor of Planning	Master of Planning
4	School of Planning and Architecture, Bhopal	Bhopal, MP	Bachelor of Planning	Master of Planning
5	School of Planning and Architecture, Delhi	New Delhi	Bachelor of Planning	Master of Planning
6	Sardar Vallabhai National Institute of Technology, Surat	Surat, Gujarat	Not offered	Master of Technology in Urban Planning
7	Pune institute of Engineering & Technology	Pune, MH	Not offered	Master of Planning
8	Maulana Azad National Institute of Technology, Bhopal	Bhopal, MP	Bachelor of Planning	Master of Urban Development and Planning
9	Mahalviya National Institute of Technology	Jaipur (Rajasthan)	Not offered	Master of Planning
10	Jawaharlal Nehru Technology University	Hyderabad, AP	Bachelor of Planning	Master of Planning
11	Indian Institute of Technology Roorkee	Roorkee, UK	not offered	Master of Planning
12	Indian Institute of Technology Kharagpur	Kharagpur, WB	Not offered	Master of Planning
13	Guru Nanak Dev University	Amritsar, PB	B.Tech (Planning)	Master of Urban Planning
14	College of Engineering, Pune	Shivaji Nagar, Pune, MH	B.Tech (Planning)	Master of Urban and Regional Planning
15	College of Engineering, Pune	Thiruvananthapuram	not offered	M. Plan (Housing)
16	Centre for Environmental planning and Technology	Ahmedabad, GJ	Bachelor of Planning	Master of Planning
17	Birla Institute of Technology	Ranchi (Mesra), Jharkhand	not offered	Master of Urban Planning (Town Planning)
18	Bengal Engineering and Science University	Howrah, WB	not offered	Master of Urban and Regional Planning
19	Anna University	Chennai, TN	not offered	Master of Planning

Source Meshram (2014, p. 7)

planners for effective planning for methodical development of a city. For this to happen, we would need establishment of a large number of educational facilities for planning including planning schools.

14.4 Deficiencies in Planning Education

For a country of India's size with a sixth of the world population, and growing further, we need many more schools of planning to create a wide fraternity of planners in every aspect of planning such as urban and regional planning, housing, transport planning, infrastructure planning, environment planning, etc. While engineering institutions have multiplied, institutions offering education in planning have hardly grown. This has led to a wide gap between demand and availability of planners in the country. Most graduating planners are absorbed in government institutions. The following factors further attest to a greater need of planners:

- On the curriculum front, we need to orient education to actual field level practice in various local and geographical contexts. Pull and push forces that are at the centre of emerging changes occurring in a city, actually dictate and determine city growth, real estate demand, pressure on natural resources, and features like lakes or rivers, areas in vicinity of heritage buildings need to be understood and legislation modified accordingly anticipating outcomes. Many times these forces are directed toward profiteering and pulling in the opposite direction of byelaws leading to undesirable growth and outcomes.
- Government, for the improvement of towns and cities has devised schemes like the JN NURM, IDSSMT, etc. Planning education also needs to focus attention on these schemes aimed at improving infrastructure. These schemes are doing well and seeking to meet demands for infrastructure in towns and cities.
- Currently government departments in all towns and cities are equipped to execute works coming under infrastructure schemes through agencies like the PWD, and housing boards through well-established systems. However, as for planning, we are quite short of planners due to fewer educational institutions imparting planning education.
- Planning education needs to train planners to 'anticipate change' in the growth path of a town or city. This also requires inculcation of understanding of local economic driving factors specific to the area or region. In Bangalore, for example, the IT industry is a principal driver of the economy and has defined many of the changes in the city's growth story. The IT industry itself has been a growing phenomenon of the past two decades. Prior to that Bangalore was very much a 'pensioners paradise,' its economy being driven by a large population gainfully employed by the then eighteen public sector units including ITI, HAL, HMT, Wheel and Axle Plant, BEL, ISRO, BEML, BHEL, etc., with their many ancillary manufacturing units run and supported by the private sector.

- We need to sensitize students to comprehend all these issues and come out with inclusive planning strategies with emphasis on interdisciplinary coordination while planning redevelopment of an area, i.e., aspects of traffic rerouting would have to be linked with services as water supply, power, existing drains and drainage of the area in its relation to other drains in the area, relocation of people, statutory provisions and byelaws would decide on the extent of construction possible, etc. This would help in developing an understanding about the various aspects involved in a planning project and the possible multiple options and choices one would encounter in terms of outcomes.
- All development authorities, housing boards, and municipal corporations in cities have planners appointed for administering controls and checks over new construction and sprawl. But a handful of planners may be quite unable to carry out larger and multifarious tasks given that the city is growing in all directions.

While this impetus from central government has resulted in greater provision of infrastructure for growing cities, it has not been possible to increase the number of planners to plan and implement planning policies for city growth. This is due to the fewer number of urban planners that government is unable to bring out annually requirements of growing towns and cities.

For planning growth and development of a town or a city and controlling sprawl, it requires a collective thought and efforts from planners of all backgrounds—sociologists, economists, geographers, and physical planners, architects, and engineers. While architecture and engineering are generally private professions, planning as a profession is yet nascent and needs better environment to blossom as an independent profession. As a result the entire burden of city planning, revitalization of areas, slum redevelopment and planning of new extensions falls on a handful of planners in the service of government, without cooperative support from other disciplines.

While we focus on the specific task at hand, it is important to develop the vision as we progress, to take a 'view from the hill' and be able to anticipate and arrive at a broader picture of the links that exist or may be perceived to come into play. A good example of this has been the planning of Greater Bombay by Charles Correa and undertaken by CIDCO. The problem of decongesting Bombay from its north to south commute of people from morning to evening was brilliantly resolved by creating an east west commuting axis to shift the focus to Vashi, New Bombay where a complete new area was planned. It was the visionary imagination of this man that he was able to perceive a planning solution in a remarkable way. This happens seldom in other places.

The result naturally is that a stringent control on haphazard growth or sprawl is seldom possible and the result is unplanned growth in the city periphery. Regularization of this growth poses problems to city planners requiring government to regularize such sprawls at a later date. This leads to the degradation of the city fabric with excess load on the existing infrastructure where creation of additional infrastructure may itself be a problem.

14.5 The Changing Equation

The past two decades have been good for the country with globalization bringing in its wake benefits with a lot of FII and MNCs coming into set up production facilities for products and services. This on the one hand has been an ocean of opportunities and with creation of jobs and opportunities for support industries to cater to larger industries as well as generation of wealth for the common man. It has also given impetus to government to build infrastructure in Tier II and Tier III cities as well as connectivity between larger cities. Thus, we have benefited from the Golden Quadrilateral Project which connects all four corners of our country and en route passes through various smaller towns. The recent spurt in building metro rail projects simultaneously launched in many towns across India is also an example. Projects such as these are very large ones and have been planned in their engineering aspects very well. They benefit people in cities and towns. However, what remains to be planned is the assessment of other supporting facilities and assessment of impacts these projects would have on the city as a whole, its heritage, traffic morphology, and what needs to be taken up in parallel along with these projects to aid efficient functioning of these projects. For example, the metro rail stations in Bangalore have all been planned without any parking areas for cars and two wheelers. In the absence of such car parking spaces in the vicinity of metro rail stations, efficacy of the metro rail to service every individual desirous of using this service would be seriously limited; may not quite serve the intended purpose.

When infrastructure projects of such a magnitude as a metro rail are planned and constructed for a city, it impacts the city in a very big way. It changes the entire urban structure and land markets and the way the city has been perceived so far by its inhabitants and planners. It is necessary to plan for connectivity to metro rail from several other places, widen transport networks and plan for new facilities such that commuters are serviced to meet their needs and convenience. A project of this nature is not a project alone but a sea change event in the life of the city that would impact the city in myriad ways. Therefore, the event needs to be assessed for its impact and resulting needs that would arise. This is a major planning challenge for the city and for which a coordinated effort requires to be made by planners at every level. An event of this nature cannot be perceived as an isolated occurrence but a milestone in a larger scheme resulting in a multitude of developments.

While mega projects of government are being planned and carried out on a BOT or BOLT basis with private equity, the same is being slowly considered for urban planners to be stakeholders in the growth of cities. This is where the stakes and relations would now start changing. Earlier on it required central government to call upon an international architect like Pierre Jeanerette (Le Corbusier) to design Chandigarh (Joshi 1999). The results were stunning and ushered an era of modernism in planning and architecture in India. Although this did not give a fillip to evolving planning into a profession,it did leave a mark in the history for posterity, as to how a private–public partnership could bring in a positive change (Khan et al. 2009).

I believe this is the change where private participation from city planners is being welcomed in planning of infrastructure, new towns, and cities, and in other government departments such as tourism, healthcare, SEZs, etc. Just as in the case of Chandigarh, we had sectoral planning as a solution to city growth avoiding chaos during transition and growth. I believe planners becoming stakeholders in public projects opens up huge possibilities with new ideas and concepts. This also distributes and relieves the work load of government departments with limited human resources available to them (Klaus-Peter 1996).

As public private partnerships in planning diversify and grow, with India poised to become far more developed, the demand for planners will increase enormously, thereby leading to starting of more planning schools with greater recognition to planning profession as it is practiced widely throughout the country.

For many years until after independence, planning almost remained dormant as a profession for public practitioners. It is for this reason that we had to depend upon foreign planners to come and help us build cities and infrastructure. It is only with the advent of globalization that we as a country opened our doors to the outside world thereby engaging in exchange of trade and ideas across many sectors. The need for planning was most acutely felt during the years of globalization, and this change in the environment allowed private practice in urban planning as a positive development in this changed environment.

Ideas that are being propounded by planners for overcoming shortcomings of poor infrastructure, and housing are forward looking and promising; the actual implementation remains under the bind of regulatory framework that has not been amended over time. As a result, modern solutions brought by planners in the practice of urban planning for projects are many times unfeasible.

Take for example the housing layouts that are made by state housing boards. Land which is a scarce resource is acquired for layout formation against the wishes of farmers and owners and formed into layouts. First, we lose good agriculture land. Second, these layouts are made into sites, roads, and infrastructure is provided and water supply and sewage lines are put in place with sewage treatment plants in the case of large layouts exceeding 50 acres. It takes about 2–3 years for the completion of layout formation. Sites are allotted thereafter. The result is that no one builds a house here immediately. In the first 5 years, less than about 10 % of the sites have houses built on them. But water tanks, the GLSR, the sewage treatment plant, and the power supply street lights have all been completed at a huge cost but remain unused. In about 10 years, a layout has only about 15 % built houses and conditions for infrastructure use are still not satisfactory and optimal. At this time roads have started deteriorating; and sewage lines are still unused significantly.

In the next 10 years that is from 20 years after inception of a layout it may be expected to be occupied to the extent of 60 %. The STP and overhead water tanks are now being used. But we have invested on them 20 years ago. We were in all these years burning all street lights; we spent on roads that in most parts are in shambles. Why and for who have we spent this money, and who has really benefited? These remain unresolved issues for planning educators as well as planning practitioners.

We have certainly fulfilled the policy requirement of providing housing though no one lived there. A simpler solution to this may be to not build at all on land and invest such huge money on something else. Such mistakes could be avoided if these developments are fully integrated into master plans of cities. Strategic acquisition of land development through private partnerships with less investment by government will result in better outcomes. This is where the practice of planning is not able to break away from the shackles of set and fixed regulatory frameworks, which are not adaptive to changes.

14.6 Conclusions

The relationship between education in planning and practice of planning in reality has a direct relevance and impact. While education and its dissemination should be sensitive and adaptive to changing scenario of a city, policy, and regulatory frameworks also need to keep pace with changing requirements and prospects. Education—policy framework—practice of urban planning is interdependent. There exists a huge gap between the supply of city of planners as against the increasing demand. However, educational infrastructure for training planners in the country is also insufficient and needs upgrading manifold.

We have over the decades set up more planning schools but the pace of urbanization is very rapid and we are not able to keep pace with it in terms of policy changes and education to produce more planners. This demand-supply gap has to be effectively bridged, if we are to meaningfully plan for city growth and building of infrastructure. As planners we need to constantly look out for new methodologies and strategies for decongesting cities and providing better solutions for housing needs with limited developed land. Relying only on horizontal growth-low rise-low density housing solution will not work for long and we must have a mix of high rise and low rise. Further, we should carry out need and time-based expansion of housing instead of layout formation pattern that is commonly followed by state housing boards across the country. Government on its part should encourage more private planners across all sectors and departments to participate and become stakeholders in planning and development process to encourage new solutions for handling multiplicity of problems arising in Indian towns and cities.

References

Asia Society. (2012). *New Delhi and Edwin Landseer Lutyens (1869–1944)*. Retrieved October, 11, 2013 from http://sites.asiasociety.org/princesandpainters/design-of-delhi-edwin-lutyens/

Architecture of Delhi—Delhi-City in Conflict. (2013). Retrieved October 12, 2013, from http://delhi-architecture.weebly.com/delhi-city-in-conflict.html

Joshi, K. (1999). *Documenting Chandigarh: The Indian Architecture of Pierre Jeanneret, Edwin Maxwell Fry, Jane Beverly Drew, Volume 1*. Ahmedabad: Mapin Publishing.

Khan, H. U., Beinart, J., & Correa, C. (2009). *Le Corbusier: Chandigarh and the Modern City*. Ahmedabad: Mapin Publishing.

Klaus-Peter, G. (1996). *Le Corbusier: Paris-Chandigarh*. Berlin: Birkhauser-Publisher.

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Chapter 15
Ethics in Town and Country Planning Education in India: Environments and Contexts

Abdul Razak Mohamed

Abstract Town and country planning is one of the growing academic subjects of education in India and its professional significance is also being recognized by Government of India. Education plays an important role in the development of an individual as well as society. Schools, home, families, community, neighbourhoods, villages, towns and cities are the agents for facilitating learning and knowledge building among children, youth, women and old age population. Town and country planning is concerned about creating livable and wholesome human settlements for people. In India, nearly 60 years of planning of human settlements experience has witnessed tremendous growth of towns and cities as well as high levels of urbanization and planned development. Development in social and physical infrastructure and information and communication has also displayed a lot of improvement in rural and urban areas in India. Education and profession in town and country planning in India have accumulated this long experience. Yet people in urban and rural areas struggle for a sustainable living. The fact is that the size and growth of town and country planning education institutions and professional organizations are very low when compared with the size and growth of population and human settlements in India. It is not only the number of educational institutions and professional organizations but also the quality and versatility of planning education and profession are very important and necessary to enhance the quality of life of the people in rural and urban settlements in India. The experience from India shows that the national, state and the local governments and planning institutions pay little attention to the question of planning ethics. This chapter attempts to fill this gap by outlining the significance of ethics in town and country planning education and the link with professional practice.

Keywords Environmental ethics · Planning knowledge · Social institutions · Education and ethics · And instrumental value · Intrinsic value

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15.1 Introduction

Ethics in town and country planning education and practice needs better emphasis. A good planning and governance system takes into account the future of life of people in human settlements has to focus on ethics. If the word plan means future, so planning on ethical principles should concentrate on creation of future spaces and places for people as individuals and collectives, children and the aged, men and women, living in harmony with nature and other fellow human beings. Ethics of planning should stress on education that is premised on professional morality and welfare. It needs integration of ethics as social values into spatial planning education and spilling over to planning practice where planners and policy makers treat ethics as a pre-requisite for sustainable development. In this chapter the author has made an attempt to explore conceptually and in real terms the role of ethics in the town and country planning education in India.

Town and country planning education interfaces with areas as wide and diverse as science, technology, art, engineering, architecture, social sciences, law and environment. Town and country planning may be concerned with small housing area or big city, piece of land or vast hills, early morning jogging track in a park or a long queue of vehicles in a narrow congested road, call of your neighbour or thunder, a nest in the tree built by birds or lavish bungalows and flats on land built by man, a cup of water in hand or rivers, lakes and ocean, trees in the backyard of the house or a forest, and it is also individuals, communities, areas, regions, nations and the world.

Ethics remain centrally relevant to planning. Town and country planning is very complex and cities and towns gain name and fame and in some cases it loses its character and identity. It means something is wrong with planning and development approach towards education and practice in town and country planning. Cities and towns offer luxurious and lavish life for some and fail to provide basic quality of life to many. There is a need for change in town and country planning education and practice, focusing towards spatial planning, governance, socio-economic and environmental planning. Human population includes children, adults, aged people, rich, poor, men, women, differently abled people and their needs are varying with regard to circumstance, time and space. These factors need to reflect in town and country planning education and practice. Ethics play pivotal role in this uncertainty and complexity.

Education is knowledge impacting on the behaviour and personality development of learners. Educational ethics is a branch of philosophy that considers the moral relations between human beings and their natural environment. Town and country planning is a field of study, which assumes that humans have certain responsibilities towards nature while creating their built environment, and it seeks to help people and planners become aware of them and to act responsibly when they do things that impact nature. Ethics followed in education are essential for practice and in the professional world of a learner. Learners, educators and infrastructure become the three important pillars for knowledge building in any planning institution.

Quality and quantity of manpower and materials present in any educational institution determine the progress and development of children and youth of a country. Growth or development of an institution is more than the number of teachers, support staff, laboratories, computer centres, play grounds, libraries, etc. What is needed is the social environments in an institution in which human relations are becoming an important element for the success of education, profession, society and nation at large. Learners in a class may be homogeneous in terms of their age and sex but all other things are varying in nature in terms of their family background, personality, learning capabilities, expressions both in plan, design, words and writings, etc. An educator's role is to treat and consider learners in accordance with their diverse needs. Creation of individuals and group centred learning environment is the moral responsibility of educators.

15.2 Ethics in Education—Human and Environmental Perspectives

'Those who know, do. Those that understand, teach', said Aristotle. Ethics has been one of the prime concerns of both philosophy and religion, the two areas of human endeavour that seem to be supplanted by pre-occupations with seemingly more practical relevance for existence. Nonetheless, the need for ethics at all levels is generally acknowledged but teaching of ethics in an applied sense is still holding us back in specific educational contexts, both as a general aim and as an academic subject.

The academic field of ethics got a new thrust in response to the work of scientists such as Rachel Carson and events such as the first Earth Day in 1970, when environmentalists started drawing the attention of philosophers to the philosophical dimensions of environmental problems. Two papers published in Science had a crucial impact: Lynn White's 'The Historical Roots of our Ecologic Crisis' (March 1967) and Garrett Hardin's 'The Tragedy of the Commons' (December 1968). Also influential was Garett Hardin's later essay called 'Exploring New Ethics for Survival' as well as an essay by Aldo Leopold in his 'A Sand County Almanac', called 'The Land Ethic', in which Leopold explicitly asserted that the roots of the ecological crisis were philosophical (1949). It is imperative that land and people, living and non-living things become the central concern of environmental ethics.

Environmental ethics became a subject of sustained academic philosophic reflection in the 1970s. Throughout the 1980s it remained marginal and relatively unemphasised within the discipline of philosophy. Only after 1990 did the field gain institutional recognition at programs such as Colorado State University, University of Montana, Bowling Green State University, and the University of North Texas. In 1991, Schumacher College of Dartington, England, was founded and now provides an M.Sc. in Holistic Science. These programs began to offer master's degrees with a specialty in environmental ethics and philosophy.

Beginning in 2005 the Department of Philosophy and Religion Studies at the University of North Texas began offering a Ph.D. program emphasizing on environmental ethics and philosophy. Although academic advancement is visible, still it is very important to note that environmental ethics is not just philosophy but it is also concern of every discipline to disseminate and every human being to understand and follow.

There have been a number of scholars who have tried to identify the various ways the natural environment is valued. Alan Marshall and Michael Smith are two recent examples of this as cited by Peter Vardy in 'The Puzzle of Ethics'. For Marshall, three general ethical approaches have emerged over the past 40 years. Marshall uses the following terms to describe them: Libertarian Extension, Ecological Extension and Conservation Ethics. The libertarian extension echoes a civil liberty approach, i.e. a commitment to extend equal rights to all members of a community. The ecological extension places emphasis not on human rights but on the recognition of the fundamental inter-dependence of all biological (and some abiological) entities and their essential diversity. The conservation ethics is an extension of use-value into the non-human biological world. It focuses only on the worth of the environment in terms of its utility or usefulness to humans.

Leopold's A Sand County Almanac (1949) in particular advocated the adoption of a 'land ethic' which means land as a commodity is the basic concept of ecology, but that land is to be loved and respected is an extension of ethics. Leopold's idea that the land as a whole is an object of our moral concern also stimulated writers to argue for certain moral obligations toward ecological wholes, such as species, communities, and ecosystems, not just their individual constituents.

Connections between environmental destruction, unequal resource consumption, poverty and the global economic order have been discussed by political scientists, development theorists, geographers and economists as well as by philosophers. Links between economics and environmental ethics are particularly well established. Work by Mark Sagoff (1988), for instance, has played a major part in bringing the two fields together. He argues that 'as citizens rather than consumers', people are concerned about values, which cannot perhaps be reduced to mere ordered preferences or quantified in monetary terms.

Other interdisciplinary approaches link environmental ethics with biology, policy studies, public administration, political theory, cultural history, post-colonial theory, literature, geography and human ecology. Many of the more recent assessments of issues concerned with biodiversity, ecosystem health, poverty, environmental justice and sustainability look at both human and environmental issues, eschewing in the process commitment either to a purely anthropo-centric or purely eco-centric perspective. The future developments of environmental ethics depend on these, and other interdisciplinary interactions, as much as on its anchorage within philosophy. The learning of ethics and its diversity in terms of human life and environment is of greater importance in town and country planning education and practice. It follows from the fact that land, people, buildings, roads, vehicles, environment, resources, technology, finance, governance, etc. are the central concerns of town and country planning education.

15.3 Ethics in Town and Country Planning Education and Practice

Social Institutions educate people in a society about the rules and regulations to be adhered to individually which are set by the society for the secure and sustainable living of every one. Societal norms and regulations guide people to help and care for fellow human beings and all other things in the environment. Most people recognize that some agreed upon guidelines or general rules would and should exist between individuals when they interact with one another because if they did not, nothing in our lives would be predictable or safe.

In other words, people need to know that besides actual or formal state laws, there are some basic, common ethics or principles of what is right and what is wrong that everyone agrees upon and usually follows or lives by? Ethics is sometimes called moral philosophy because it is concerned with what is morally good and bad or what is right and wrong? As a specialized part of ethics, education ethics is concerned with the morality (sense of right and wrong) imbibed in human upbringing as they affect the behaviour of individuals or the professional practice and social world we live in.

Mostly, ethics deals with problems of human desire and needs such as the achievement of happiness, or the distribution and sharing of goods. The central problem specific to thinking about education, is the independent value attaching to such things as the life and living of people, and protection of the environment. Such human living and protection of environment could be supported by rationality held innate to learning and practice. For instance, the land is regarded as main resource for the creation of shelter and service for people and other living things. But the availability and nature of land suitable for human living and the significance of respecting existence of natural environment is very important in planning education and profession. It is due to the fact that the significance of respecting the diversity of land form and structure and the life exists on the land. Education and practice in the field of town and country planning consider protection of all kinds of life from in the nature as the key ethical principle. Thus education and practice needs to put ethical principle in focus, and failure to appreciate the ethical value is not only a grave failure but one that undermines humanity, humility and reverence, indeed a case of moral disability. The problem is one of incorporating ethical value in education and practice, and mobilizing it against amoral utilitarian arguments for developing human settlements.

The issue of ethics in education is not only learning planning norms and principles in creating spaces and infrastructure for learning in the institutions but also the awareness and practice of ethical values by teachers. The knowledge and practice of ethics among the students and the behaviour of teachers towards their students in the learning environments is important for knowledge building and personality development of the students. The teachers, students and parents

relationships are crucial and play an important role in the upbringing of students in their education and future professional careers. It means the educational ethics mould the learner's future in terms of their family life as well as professional life. It is a means for the livelihood building of the learner. The educator's challenge is with regard to practice of educational ethics in building the future of learners, family, community and the society at large.

15.4 Challenge of Educational Ethics

There are situations such as putting out natural fires, culling feral animals or destroying some individual members of overpopulated indigenous species is necessary for the protection of the integrity of a certain ecosystem. Will these actions be morally permissible or even required? Is it morally acceptable for farmers in non-industrial countries to practice and burn forests to clear areas for agriculture? Consider a mining company which has performed open pit mining in some previously unspoiled area. Does the company have a moral obligation to restore the landform and surface ecology? And what is the value of a humanly restored environment compared with the originally natural environment? It is often said to be morally wrong for human beings to pollute and destroy parts of the natural environment and to consume a huge proportion of the planet's natural resources. If that is wrong, is it simply because a sustainable environment is essential to (present and future) human well-being? Or is such behaviour also wrong because the natural environment and its various contents have certain values in their own right so that these values ought to be respected and protected in any case?

In an urbanizing world the land is the main resource and basis for development particularly the cities and towns whose core areas are developed. Now new growth and expansion will take place in the peri-urban areas where the environmental ethics are not used and respected by the city planners and policy makers of many nations. The master plans and development plans very often propose changes in land use for various urban developments of the towns and cities to expand growth geographically. In this exigency best agricultural lands, water bodies, wood lands, etc. are converted into build up areas causing damage to environment and ecosystem. Protection and preservation of environmentally endowed and sensitive areas should be a high priority before areas of planners and policy makers, while framing the agenda for spatial development. It is really a challenge before city governments and people inhabiting the cities. Concern about environment, towards rural and urban planning, development and management has to become even more entrenched. So education ethics have a great and fundamental role in imbibing knowledge and setting the pace for planning education. It is very much essential in the field of town and country planning, which creates built environment, that it contributes to sustainable living for human and other living things on the earth.

15.5 Endnote

The identity of a living thing is essentially constituted by its relations to other things in the world, especially its ecological relations to other living things. If people conceptualize themselves and the world in relational terms, then people will take better care of nature and the world in general. It is essential to focus on the possibility of the identification of the human ego with nature. The idea is that by identifying with nature, man can enlarge the boundaries of the self beyond his skin. Man's larger ecological Self (the capital "S" emphasizes that man is something larger than his body and consciousness), deserves respect as well. To respect and to care for man's Self is also to respect and to care for the natural environment, which is actually part of man and with which he should identify. Self-realization is the reconnection of the conceptually abstract human individual with the wider natural environment. In this context the learning environment in the educational institutions could be comfortable and invite knowledge both in terms of subjective as well as objective learning.

It is often said to be morally wrong for human beings to pollute and destroy parts of the natural environment and to consume a huge proportion of the planet's natural resources. If that is wrong, is it simply because a sustainable environment is essential to the present and future human well-being? Or is such behaviour also wrong because the natural environment and its various contents have certain values in their own right so that these values ought to be respected and preserved in any case. These are some of the questions needing investigation as essential part of planning ethics. Some of them are specific questions faced by individuals in particular circumstances, while others are more global questions faced by groups and communities.

Education ethics the distinction between instrumental value and intrinsic value has been considered as of considerable importance. The former is the value of things as means to further some other ends, whereas the latter is the value of things as ends in themselves regardless of whether they are also useful as means for achieving other ends. For instance, think of a person who teaches others as having instrumental value for those who want to acquire knowledge. Yet in addition to any such value, it is normally said that a person has intrinsic value, i.e. value in his or her own right independently of his or her prospects for serving the ends of others. Marcus Johansson and Abdul Khakee (2009) primarily investigated how urban planners who are civil servants reflect about ethical decisions. Both structure plans and building permit applications for private building are examined, and it is important that ethics can be incorporated into the training of planners. The code of ethics and principles of professional conduct for the education profession in Florida reveals that the educator values the worth and dignity of every person, the pursuit of truth, devotion to excellence, acquisition of knowledge, and the nurture of democratic citizenship. The educator's primary professional concern could be always being there for the students and for the development of the student's maximum potential. The educator will therefore strive for professional growth and will seek to

exercise the best professional judgment and integrity. Aware of the importance of maintaining the respect and confidence of one's colleagues, of students, of parents, and of other members of the community, the educator strives to achieve and sustain the highest degree of ethical conduct.

The value added education in the field of town and country planning should incorporate the principles such as (a) build trust in the profession and professional relationships with students, (b) respect the uniqueness and diversity of student needs, (c) work in a friendly and collaborative manner with colleagues, parents, guardians, (d) act with honesty and integrity, (e) update the professional knowledge and practice up to date, and (f) commit to develop and build institutions as well as self development. The professional educator strives to create a learning environment that caters to satisfy the potential of all students. The professional educator acts with conscientious effort to exemplify the highest ethical standards. The professional educator responsibly accepts that every student has a right to get a fair and quality education free from discrimination and distrust.

Town and country planning educational ethics should not be mere philosophy, but it should address the concerns of educators, learners, parents, professionals. Planning education should ensure to give learners abilities for planned thinking. It is all the stakeholders' responsibility to undertake any simple or large scale activity at home, study, work, place of movement and living, which contribute towards improving the quality of our built environment, and definitely not to disturb or destroy the natural environment. It is appropriate to conclude that the importance of ethics in town and planning education and practice lies with the town and country planning education. It is very clear from the following quote. "The mediocre teacher tells. The good teacher explains. The superior teacher demonstrates. The great teacher inspires", said William Arthur Ward.

References

Johansson, M., & Khakee, A. (2009). *Ethical Urban Planning—Is there such a thing? A students text book*, U.K.

Sagoff, M. (1988). *The Economy of the Earth*. Cambridge: Cambridge University Press.

Websites

http://sustainability.formas.se/en/Issues/Issue-3-October2009/Content/Articles/Ethical-urban-planning-is-there-such-athing/

http://www.fldoe.org/edstandards/code_of_ethics.asp

http://teachersofindia.org/en/article/ethics-education

Chapter 16
Value Education in Planning for an Effective Professional Outreach

Srikonda Ramesh

Abstract If we wish to think of the world without the idea of town planning, it would be like living in a society and not knowing anything about it—like what is social cohesiveness, economic uplift, and dynamics of built environment, ecological systems and sustainable habitats. Town planners may study and guide socio-economic growth, spatial and temporal distribution of natural and built resources, interactions of humans with environment to protect, conserves the habitats at present and for the future. But to comprehend planning, which is an interdisciplinary subject and deals with social, economic and physical sciences, one needs appropriate training and education. In early stages of education, one would have exposure to history, arts and architecture, sociology and geography. As one moves to higher semesters, in contemporary planning education one opens up to totally different perspectives with a focus on socio-economic issues, physical development of built spaces, energy efficiency in micro to macro environments, and sustainability with due interface with human habitats. Planning education is multi-dimensional subject. It evolves planning consciousness and leads towards understanding the intricacies from human and natural world experiences. Value education in planning recognizes ongoing developments. It is essential to integrate planning pedagogy with students experiencing, perceiving, projecting, programming and conceptualizing the present and future needs of the society to organize developments with due consideration to ecology and environment. Pedagogical forays played a crucial role in shaping planning discourse and practice in the second half of the twentieth century. It is to emphasize that pedagogical exchange is a form of value creation rather than knowledge transmission. Value of planning education can be addressed as two different categories in planning education system: one may be professional knowledge transmission (utilization) and another personality development. Application of knowledge in the industry is directly dependent on the knowledge gained through professional educational pedagogy. Value education in planning is essential and crucial to develop a synergy for organizing and managing

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development trends. Planning pedagogy relating to problem-based learning may yield a proper balance between profession and academia.

Keywords Planning pedagogy · Problem-based learning · Structure of the observed learning outcome · Multi-structural · Uni-structural · IT and learning

16.1 Introduction

Important constituents of town planning education are to bring about clarity to several layers from grassroots level to macro level vision of development and governance amidst ongoing transformations at central and state levels. The focus has been always to include international concerns such as climate change and sustainable development, and also those of national five year plans. Value education has to incorporate these parameters at both undergraduate and postgraduate levels. Urban centres are witnessing high and diversified growth, and becoming nodes of global urbanization. The impact on ecology and environment has to be assessed and reviewed from time to time and urban and rural development plans at micro level and regional plans at macro level have to incorporate these reviews. The expertise in various disciplines related to planning of settlements becomes necessary in planning education. Now, town planning is fast transforming. In the context of economic growth and political stability, it has succeeded in providing a high level of hope regarding physical and social well-being. However, the continuation of past practices can no longer guarantee desirable city development. There is an increasing scepticism about working with local plans based on nationally designed planning legislation (Gunder and Hillier 2007).

This chapter looks at the larger question of what constitutes value education in planning for an effective professional outreach. The main idea is to discuss how values could improve planning education as well as planning practices.

16.2 Planning Education, Proficiency, and Profession

Due to urbanization, regional disparities, unemployment, migration, city overcrowding, growth of slums and other socio-economic problems, planners need to look at town planning as an interdisciplinary area and have other concerns such as sociology, economics and geography kept at the centre of planning education. Town planning education gradually incorporated several specializations, field exercises and research projects to make the students competent professionals. Planning education is essential to train town planners so that India may successfully manage regions, cities, small and medium towns, and villages. Especially the focus must be placed at regional level with special reference to small and medium towns where these settlements determine the future of India in the coming decades. The 73rd and 74th Constitutional amendments in 1992 provided insights for education hat should

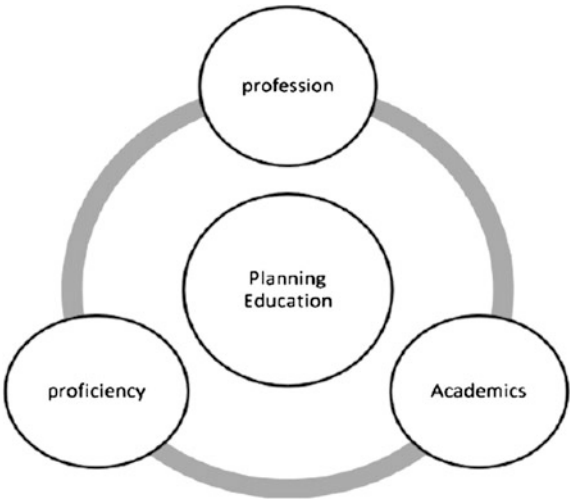

Fig. 16.1 Links between academics, proficiency and profession

be given to planners to shape or organize the built environment in a manner acceptable to society. It can be viewed as establishing appropriate balance among proficiency, profession and academia (see Fig. 16.1; also see Thornberg 2008).

- Planning as a field of learning holds the promise of providing teachers with a framework that will enable them to provide high quality, effective and innovative learning experiences for the students so as to utilize the knowledge effectively.
- By creating the possibility of reconstructing the existing teaching strategies; aiding rethinking on their own practices; documenting innovative learning activities; and sharing and reusing expert practices; learning processes have the potential to improve the quality of teaching in planning schools and other university departments.

16.3 Participatory Planning Thought

At this stage, it is advisable to address participatory planning issues to forestall the disconnect among stakeholders with differing aspirations. Planning students need to understand different disciplines and training in the field in order to obtain comprehensive thoughts to regulate and direct socio-economic and physical development of built areas and appropriate use of land across the region as well as grassroots level. It is essential to consider grassroots level because comprehending beneficiary target areas is central to planning. The past decade has seen increasing attempts to foster collaborative and participatory approaches to spatial planning and decision-making with a more sophisticated conceptualisation of participation. Participatory bottom-up

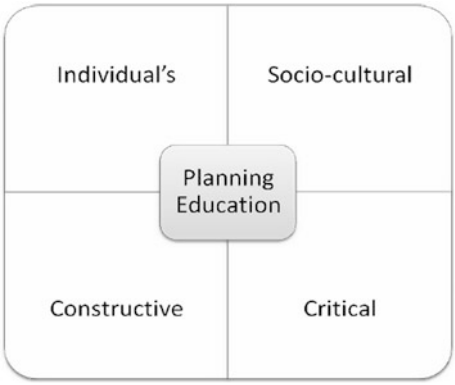

Fig. 16.2 Characteristics of value education

geo-information technologies have been developing and these are expected to strengthen participatory spatial planning. Important among these have been the transformation of conventional mapping and GIS tools into participatory planning. We need to consider five fundamental principles of good governance: accountability, legitimacy, respect, equity and competence, and the potential of geo-information tools to contribute to value planning with a special focus on participation and the recognition and validation of local knowledges. Characteristics of meaningful value education are (also see Fig. 16.2):

- A 'socio-cultural way of seeing' provides students with a tangible teaching-learning environment to facilitate their ways of seeing through diverse design parameters.
- An 'individual's way of seeing' assists students in reflection and articulation about how and why they should apply certain specific knowledge to a certain specific task? This aspect promotes critical thinking about making appropriate choices.
- Another aspect of value education is 'critical ways of seeing', which enables students to question, analyse what and how they are seeing.
- A 'constructive way of seeing' is about questioning achieved answers and reviewing these answers about their workability in the field of planning.

Depleting resources and climate change are posing alarming challenges to planning students and faculty. Therefore, planning education has to address these issues. These involve various scientific, technological, and socio-economic elements, and create need for application of a diversity of approaches to study ecology and environment. The demographics indicate that population in India may even cross that of China within two to three decades from now. So, conservation of natural resources have to be considered as a top priority in general, spatial development planning with a road map to be prepared with due integration of parameters related to sustainable development, energy efficient planning with solar energy infrastructure at all levels of development. To fulfil objectives of settlement planning, it is quite necessary to orient planning education towards value-based planning education.

16.4 Value Education—Teaching-Learning Process

Value education (VE) is a systematic process using experts from a variety of disciplines to improve the value of planning education process through the analysis of its functions related to profession. The VE process incorporates, to the extent possible, values of various components such as educational design, quality teachers, infrastructure in schools, maintenance, sustenance of professionals, quality improvement, teachers training, production of professionals as per demand, commitment to social needs and potentialities, etc. It strengthens teaching-learning processes and may be a yardstick for education departments or government for promoting the profession of town planning education for the benefit of society. Value education can be analyzed in accordance with the following principles:

$$\text{Value Education} = \text{Professional Training with Moral and Ethical Inputs}$$

Value Education Function is about reliable performance of functions or professional outputs in the industry and academics to meet needs of the society at the optimum level.

Professional Service Function is the natural or characteristic action or professional performance as a town planner with service rendering capabilities.

Educational Pedagogy Input is the thought process that is necessary to develop planning education as a societal service, process, structure, quality education, educational design, quality teachers, infrastructure, maintenance, sustenance of professionals, quality improvement, teachers training, production of professionals as per demand, training to deliver desirable inputs to the aspirants to deliver an effective output in the industry.

Value education can be approached in several different ways to make it worthy with deliberative teaching–learning processes with respect to the applicability of planning education in the field. It can be developed within a Constructive Alignment (CA) framework, which is considered an effective outcome-based approach in Problem-Based Learning (PBL). Various concepts have been covered under the structure of the Observed Learning Outcome (SOLO).

The systematic and structural approach comes from the VE assessment, which consists of six phases as depicted in Fig. 16.3.

- Information Phase: Gather information to better understand the professional output in the industry, academics and research.
- Function Analysis Phase: Analyse professional education system to understand and clarify the requirements of the policy makers and planners.
- Creative Phase: Generate ideas on all the possible ways to accomplish the required functions in the field.
- Evaluation Phase: Synthesize ideas and concepts to select feasible ideas for development into specific value improvement in ecology and habitats.

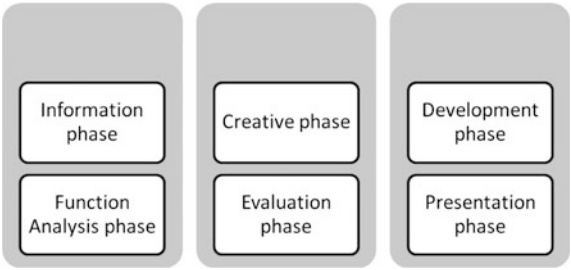

Fig. 16.3 Six components of systematic and structural approach

- Development Phase: Select and prepare the best alternatives for improving value education for the benefit of planning agencies and organizations for implementation planning recommendations.
- Presentation Phase: Present the value recommendations to governments, and other concerned organizations such as UGC, AICTE, ITPI, etc.

The VE process produces the best results when applied by a multi-disciplinary team with experience and expertise from the field or industry, academics, finance and administration who could ensure proper application of methodologies to assess value education in planning as per changing scenarios in India. Value education can be analyzed further and developed into matrices with various columns and rows of multi-dimensional elements and parameters to derive an index.

16.5 Planning Pedagogy and Exchange of Knowledge

Teaching methods and content have to be upgraded from time to time with due consideration to ongoing changes in polices, trends and developments at local, national and international levels. Professionals from field or industry must enable value education by participating duly in teaching students in the planning schools so as to inject practical, pragmatic and professional content in the teaching processes. Teaching process is very important in planning education to make students develop contemporary knowledge in dealing with multi-dimensional town and country planning problems and to attend to present emerging conditions. Value education can come about only with high quality teachers interfacing with industry and exchange programs at national and international level with top class planning schools. Teachers' capacities can be improved only when quality professional training is continually imparted to faculty. Town planners do not have organized services at all India level like engineers. It is necessary to have organized services to serve education and industry like other services to render quality service and exchange of knowledges (Carr 2011; Cecchini 1999).

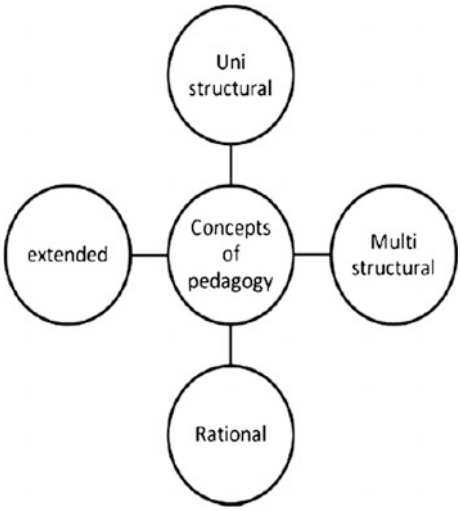

Fig. 16.4 Structure of the observed learning outcome

Structure of the Observed Learning Outcome (SOLO) is a systematic way of describing how a student's performance grows in relation to complexities of different academic tasks in planning education. The following concepts may lead to development of respective areas of education including value education (see Fig. 16.4). Initially, it is essential to focus on a single area of education where the student focuses on only one relevant aspect. This level of understanding is expressed in the form such as learn by heart, identify, distinguish, uncover and investigate, stick a tag, recollect and perform. It is largely quantitative.

Subsequently, multi-structural concept of education has to be taken up in which the student's response focuses on more than one aspect but he is still mainly treated independently. This level of understanding can be expressed in the direction such as classify, list, discuss, illustrate, select, describe and outline. It is also quantitative in nature.

The relational concept of education is foundational in which learning aspects are integrated and comprehensively applied to the real world situations with the interface between academia, industry and society. This level of understanding is expressed as apply, use, analyze, review, compare, organize, solve, explain, debate, construct, compare, etc. This form of learning is a combination of both quantitative and qualitative aspects.

The integrated whole is finally conceptualized at a higher level of abstraction. This level of understanding is expressed by verbs such as reveal, compile, formulate, theorize, hypothesize, simplify, generate, etc. This is largely a qualitative aspect of learning and application.

16.5.1 Exploration of IT and E-Learning Processes

Information technology has become a data and source tool in planning education at global and national levels. The IT has a vital role in urban and regional planning. A global network through e-learning may bridge the gap among schools of planning to share and transmit knowledge to all. Technology is directly impacting changing scenario in planning education. With the advent of tools, strategies and concepts such as Geographic Information System (GIS), Remote Sensing, Global Positioning System (GPS) and 3-D Modelling planning has become highly modernized learning process. These technologies have become special purpose vehicles in the planning process. Information technology in planning education takes into account spatial attributes of computer network technology and their implications for modelling urban and regional dynamics. Attention focuses initially on assumptions made about location and use characteristics of various related subjects in some traditional regional economic models, and then it is shown that new information technology can be used as a form of information centre. This leads us to a consideration of new thoughts entering into macro level policymaking through a pragmatic planning analysis with regards to the central role of advanced telecommunication infrastructure.

16.5.2 Participation of Planners

Over the years there has been a high growth of population in Class I towns or cities. On the other hand, concentration of population in medium and small towns has been fluctuating. Gradually number of urban centres from lower population size categories to class I cities has resulted in top heavy administration regarding urban centres, which is often termed as over urbanization, pseudo-urbanization, sprawling, etc. However, socio-economic conditions, built environment and ecology are under threat due to increased consumption and we are now facing climate change, and global warming. Planning education producing total number of graduates every year on one hand, and potential job opportunities on the other hand must have some balance in terms of absorption of graduates in the society at various levels. Value education emphasizes that market demand, proper placement, satisfactory work environment and organized services always are not the only for producing enhanced number of planners. This needs to be known to everyone; morality may also be considered when making projections. Top-down projections of manpower in the field of planning have at least one planner in each *panchayat* level in order to participate and provide professional services required at the grassroots level. Shortage of planning professionals in India has led to haphazard and unorganized developments in almost all towns and cities. It is essential to have adequate number of planners to play their role in development programs and in any policymaking process related to town and county planning.

16.6 Conclusions

Several observers have suggested an equal mix of theory, field studies and laboratory or studio is essential in teaching—learning processes in a globalized environment. Planning subject itself is very complex. It overlaps with theories of social sciences and scientific and technical subjects. The boundary between planners and related professionals is not mutually exclusive; non-planners or relatively less qualified planners also plan human settlements, and get to participate in policies related to the planning field in the Indian set up. But planning education should be focused mainly on delivering excellent leaders, administrators and managers to plan human settlements with value addition to various areas with conscious integration of different disciplines in different areas of settlement planning with due consideration to local, national and global issues.

Approximately, 250 students join every year in Bachelor of Planning courses all over the country, which is far less in number in relation to need and demand. Perhaps that may be the reason why other disciplines poach on the field of planning without proper planning education, training and lead to haphazard and unorganized development. It is essential to understand the role of planners and also to address conceptual issues concerning values in teaching and professional education of teachers. Three common concepts related to value education can be referred to under the label of 'principled preference', 'principled commitment' and 'principled disposition'. It is further to be viewed that such professional values are best appreciated under these three aspects of 'intellectual virtues', 'procedural virtues' and 'moral virtues'. In value planning education, the objective has to be about striking a balance between efficiency and morality. This has to be continually changing and conflictual.

References

Carr, D. (2011). Values, Virtues and Professional Development in Education and Teaching. *International Journal of Educational Research, 50*(3), 171–176.

Cecchini, A. (1999). New information and communication technologies and the professions of town and regional planners. *Environment and Urban Systems, 23*(3), 151–172.

Gunder, M., & Hillier, J. (2007). Problematizing responsibility in planning theory and practise. *Progress in Planning, 68*(2), 57–96.

Thornberg, R. (2008). The lack of professional knowledge in values education. *Teaching and Teacher Education, 24*(7), 1791–1798.

Chapter 17
Urbanization, Sustainable Development and the Need for Ethics in Planning Education

D. Ravishankar, Krishne Gowda and M.V. Sridhara

Abstract Urbanization is inevitable in India. However while planning economic development, environmental resources, socioeconomic factors, energy consumption patterns, and inclusion of all flora−fauna and their sustenance including human life have to be taken into consideration. In the modern world, human centric development planning is leading to not only exclusion and extinction of various species which are very essential for the survival but also excluding other sections of society that are fundamental for overall well-being. The assumption of happiness based on consumption and sense of gratification has triggered over exploitation of nature leading to depletion of resources at a faster pace and affecting peace and harmony in society. Close observation of the existing practices reveals that the root cause for various maladies is attributable to human proclivities. A well-known truism is: 'The Mother Earth has sufficient resources for everyone's needs, but not anyone's greed'. The difference between need and greed is to be clearly understood and incorporated in planning education to achieve sustainable society and world. Many developed countries have already recognized limitations of legal and economic instruments to conserve natural resources and are exploring the prospect of culture-based norms of ancient human traditions. Solution lies somewhere in a proper mix of cultural, legal, and economic instruments to achieve a balanced way of life. An attempt is made in this chapter to stress the importance of ethics in planning education, formulation of

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statutory regulations, offering economic incentives and penalties, etc. for overall sustainable development of society at large.

Keywords Sustainable development · Environmental ethics · Consumerism · Conservation and renewability · Environment

17.1 Urbanization in India

The evolution of civilized life started with hunting and subsequently led to organized agriculture along rivers and evolution of various civilization viz., Indus Valley Civilization, Egyptian Civilization, Mesopotamian Civilization, etc. The advent of wheel and gun powder led to industrialization and capitalism. The trend developed over a period of time and economic growth was faster and more pronounced in urban areas due to economies of scale, skilled labor, and diversified consumption. Mechanization of agriculture helped to reduce human drudgery and increase productivity. Thus surplus manpower moved towards industry and the service sector. Accordingly the contribution of agriculture to the economy reduced almost to 5–15 %, Industry to 10–30 % and service sector became the major contributor. These factors triggered urbanization and increasingly population all over the world became urbanized.

The world population was just 0.25 billion in the beginning of 1 B.C. and took almost 1800 years to become 1 billion in 1830. The influence of industrial revolution triggered population growth and became 2 billion in just 100 years in 1930. Concomitant with the two world wars innovations in science and technology enabled human society to get control over nature and other species on the earth thereby population started increasing at the rate of a billion in 15–20 years and reached 7.3 billion in 2014 i.e., almost 30 times in just 2000 years. Rapid industrialization and urbanization without due consideration for protection of nature resulted in adverse changes such as environmental pollution, ecological destruction, climate change, etc.

According to a United Nations report of 2010, urbanization is expected to reach 80 % in developed countries and will cross 50 % in various developing countries by 2030. In India, the number of towns increased from 5,161 in 2001 to 7,935 in 2011 as per the recent Census reports. A large number of towns are born in the vicinity of existing cities with million plus population.

Cities started growing in consonance with varied kinds of economic and social development. Technological advances created an ambience of dominance and a high degree of divorce from nature. This indirectly led to reckless use of water bodies, fertile lands, green spaces, and natural resources with the belief that technology and money can compensate this loss. Mere profit oriented approaches in planning without due consideration to inclusivity, local culture, right of other species and social classes, represented unethical practices in the present cities and local areas making them unlivable and unsustainable.

Urbanization in India has great significance because 70 % of the GDP is expected to be contributed by urban areas and by 2030 the urban population is projected to touch 590 million, nearly twice that of the USA. This will exert tremendous pressure on the already crippled urban infrastructure services and deteriorating urban environments.

Thus, it is imperative that innovative solutions are required to meet urban challenges. The issue of inclusive planning could make impact on natural resource conservation, planning urban infrastructure services like water supply, drainage, sewerage, solid waste management, transport, power, and social infrastructure viz., schools, hospitals, community center, parks, etc. Considering that human beings are the prime agents in this change, cultural values are to be incorporated in planning to ensure peace within inner environment so that society can manage better external environment for peaceful living, reduction of crimes, etc. Planning education will have to factor in these challenges of increasing urbanization and need for sustainable development.

17.2 Sustainable Development

At the beginning of the twenty-first century human beings find beset with three major challenges. The first relates to the increasing damage to environment and the earth's natural resources including the threat of climate change. The second challenge stems from the persistence of poverty in several parts of the world, and the third is related to the lack of peace and harmony in the present human civilization.

Sustainable development stresses the importance of meeting the needs of the present, without compromising needs of future generations. It is the path for a healthy future. It is an exceptional opportunity, economically, to build markets and create jobs; socially—to draw people in from the fringes and environmentally—to protect the symbiotic ecosystems and resources that are the very basis of human survival, well-being and progress. Mahatma Gandhi once made a sage statement: 'On this earth there is enough for everyone's needs, but not for their greed'. It clearly presages the route for sustainable development. Kofi A. Annan quotes an African proverb which says: 'the earth is not ours; it is a treasure we hold in trust for our children and their children' (Lead India 2002). The present challenge is to make these concepts and ideas a practical reality.

Sustainable development and urbanization can only be achieved if individuals and societies change the way they think and act. Urban planning has an important role to play in promoting and stimulating creativity, innovation, cultural diversity, social cohesion, etc. Planning could also safeguard natural heritage and biological diversity on the globe.

17.2.1 Conservation of Natural Resources

Natural Resources are broadly classified based on their source of origin, stage of development, and their renewability. These classifications are described below.

(a) On the basis of origin

- *Biotic*—Biotic resources are obtained from the biosphere (living and organic material), such as forests and animals, and the materials that can be obtained from them. Fossil fuels such as coal and petroleum are also included in this category because they are formed from decayed organic matter over millions of years.
- *Abiotic*—Abiotic resources are those that come from nonliving, nonorganic materials. Examples of abiotic resources include land, water, air, and heavy metals including ores such as gold, iron, copper, silver, etc.

(b) On the basis of their stage of development

- *Potential resources*—Potential resources are those that exist in a region and may be used in the future. For example petroleum occurs in sedimentary rocks in various regions, but until the time it is actually drilled out and put into use, it remains a potential resource.
- *Actual resources*—Actual resources are those that have been surveyed, their quantity and quality determined and are being used in present times. The development of an actual resource such as wood processing depends upon the technology available and the cost involved.
- *Reserve resources*—The part of an actual resource which can be developed profitably in the future is called a reserve resource.
- *Stock resources*—Stock resources are those that have been surveyed but cannot be used due to lack of viable technology, for example, hydrogen.

(c) On the basis of renewability

- Renewable resources—Renewable resources can be replenished naturally and by the technology-based methods of recycling. Some of these resources, like sunlight, air, wind, etc. are continuously available and their quantity is not noticeably affected by human consumption. Resources from a human use perspective are classified as renewable only so long as the rate of replenishment and recovery exceeds that of the rate of consumption.
- Nonrenewable resources—Nonrenewable resources either form slowly or do not naturally form in the environment. Minerals are the most common resource included in this category. In human perspective, these resources are nonrenewable when their rate of consumption exceeds the rate of replenishment and recovery. A good example of this is fossil fuels, which are in this category because their rate of formation is extremely slow (potentially millions of years), meaning they are considered nonrenewable. Some renewable resources like

water may became nonrenewable due to high pollution resulting from human intervention and indiscreet use.

In recent years, depletion of natural resources has become a major focus of governments and organizations such as the United Nations. With 7 billion people on the planet, there will be an inevitable increase in the demand on world's natural resources. Some major resources already under severe pressure from current rates of consumption are

- Water: Freshwater only makes 2.5 % of the total volume of the world's water, which is about 35 million cubic km. But considering 70 % of that freshwater is in the form of ice and permanent snow cover and that we only have access to 200,000 cubic km of freshwater overall, it is not surprising that demand for water could soon exceed supply. It is noted that by 2025, 1.8 billion people will be living in countries or regions with absolute water scarcity (FAO–UN).
- Oil: The fear of reaching the peaks of oil use continues to haunt the oil industry. Total global oil is 188.8 million tons from proved oil resources at the end of 2010. This is only enough to last for the next 46.2 years should global production remain at the current rate (BP Statistical Review of World Energy).
- Natural Gas: A picture similar to oil exists for natural gas also with enough gas reserve to meet 58.6 years of global need.
- Phosphorous: Without this element plants cannot grow. Essential for fertilizer, phosphate rock is only found in a handful of countries including the US, China, and Morocco. With the need to feed 7 billion people, scientists feel that we could run out of phosphorus in 50–100 years unless new reserves of the element are found.
- Coal: This constitutes the largest reserves left of all the fossil fuels. But as China and other developing countries continue to increase their use and appetite for coal, demand could finally outstrip supply. As it is, we have enough coal to meet 188 years of global consumption.
- Rare earth elements: Scandium and terbium are just two of the 17 rare earth minerals that are used in everything from the powerful magnets in wind turbines to the electronic circuits in smart phones. Credible estimates of reserve are not available.

Most of the development strategies based on anthropocentric perspectives lead to exploitation of precious natural resources beyond nature's regenerative capacity. Hence, it is very important to plan future development based on an eco-centric model. Consumption requires to be moderated, technologies are to be innovative and legal frameworks are to be devised for effective use of these resources. Such conceptual, legal, and policy efforts to conserve resources for future are a moral imperative before the mankind.

17.3 Ethics

In spite of various legal frameworks, financial arrangements, technical advances, and management options, a majority of people are deprived of basic necessities due to various distributional policy defects. The cost of projects has increased due to amoral practices and service delivery mechanisms get biased against the poor. Morality-based activities are equivalent to the ability possessed by man to impose upon himself a code of conduct, to choose between several possible alternatives—those which he considers to be good and ethical, to minimize his own selfishness and maliciousness. Parliament of World's Religions held in Chicago identified environmental issues as fundamentally spiritual in nature. Albert Einstein once stated that 'No problem can be solved through the same consciousness which created it'. i.e., we need to think beyond the present to find enduring solutions. This may be possible only when human beings transcend their thinking process beyond sensual pleasures by factoring in the needs of others and expediencies of coming generations. In addition to these, there is a fourth dimension; a shared vision of ethical values that inspires and guides cooperative action for change. Achieving the environmental, economic, and social goals associated with sustainability requires worldwide collaboration, which is not possible without shared values.

On the other hand, Transparency International estimates that about US$400 billion is lost every year worldwide for paying bribes related to government clearances and proffered goods and services. Ethical practices are a means to achieve distributive justice through cooperation. Primarily business is concerned with material things. Ethics on the other hand is concerned with intangible things and attitudes often transcending consideration of short term personal material gains. The World Bank defines corruption as 'the use of public office for private profit'. South Asian corruption has five characteristics which makes it far more damaging (HDR-UNDP 1999).

- Corruption at the top—which distorts the fundamental decision about developmental priorities, policies, and projects;
- Corruption gains in the region and investment in domestic production gets reduced substantially;
- Corruption leads to promotion of a few individual selves and the public are deprived and discomfited;
- Mainly poor people are affected, they are the worst sufferers; and
- Corruption tends to transform public resources into private wealth.

About US$900 billion per year is being spent on defense compared to only US $60 billion for foreign aid. It was stated by James Wolfensohn, President of the World Bank that 'Investing money into the root cause of poverty may help prevent conflicts and if US$900 billion spent on this cause, not even US$50 billion is required for defense'. It is stated that the expenditure on USA−Iraq war is about US $200 billion, which is sufficient to provide both shelter and water supply for the entire poor people of India. In a recent case, a special court observed that

'corruption amounts to violation of human rights and leads to economic imbalance' and corruption is against harmony in society.

Science and technology are concerned with man's victories over nature, the material world. Ethics and morals are related to life within. Science and technology have helped man to progress merely by controlling external nature. The more basic task is controlling the inner nature and rising above animal instincts and reaching human excellence. Man's true enemy is within himself. Obsessive concern with ever higher consumption standards in the name of higher living standards is a kind of psychological infection that is now being transmitted across the globe (Chakraborthy 2001).

Maslow's hierarchy of needs clearly indicates the goal of development. The society and individual have to strive hard to meet the basic needs, once this is achieved, development goal should be directed towards achieving the highest goal of self actualisation for human excellence. Underplaying of intermediary needs help to reduce wastage of resources and change in consumption pattern. Economic development without environmental protection may not last long; similarly without purity of inner environment of mankind i.e., ethical environment, development may not be sustainable.

Spirituality—ethical principles can lead to mastery over base impulses such as greed, exploitation, and abuse of power. We should help develop self-discipline and humility. One may be able to recognize the inner strength to face undue external pressure and develop equanimity. The purpose of spirituality is to raise and encourage human values. The basis of strong and stable economy is good governance, which in turn depends on the moral fiber of the leader. Chanakya, the celebrated author of Arthashastra, had said.

Sukhasya mulam dharmaha
Dharmasya mulam arthaha
Arthasya mulam raajyam
Raajyasya mulam indriya nigraham‖

The satisfaction of physical needs is indeed important but it is not enough, one has to develop intellectual and artistic abilities to achieve the fullest potential and to be content—says Albert Einstein. This is possible only when human beings transcend their sensual pleasures and develop broader perspective of life. The relationship between economics, environment, and ethics is depicted in Fig. 17.1.

Sustainability curve behaves like environmental Kuznet's curve. In order to achieve material comfort, society must compromise on environmental quality initially, but start taking care of it once purchasing power increases. Similarly, ethical behaviors would get compromised in an urge to achieve material development, but once the limitations of material comforts are understood, altruistic and cultural values start getting recognized which lead to ethical behaviors.

Considering that the earth as a single community bound together in interdependent relationships, it offers enough possibilities, imposes constraints, and seeks mutual respect for caring and celebrating the entire community of living beings in conscious self-awareness. The broader principles to be considered are

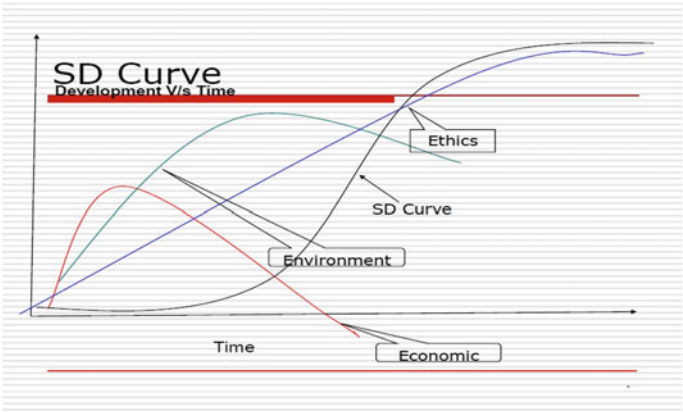

Fig. 17.1 Economics, environment and ethics

- Equitable distribution of wealth
- Economic equity and fairness
- Intergenerational equity
- Precautionary approach
- The right to development
- Internalization of externalities
- Information, participation and accountability
- Sustainable consumption and production
- Redefine well-being
- Gender equality
- Safeguard biodiversity and prevent pollution of any part of the environment

Necessary attitudes underlying ethical conduct in environmental planning and urban management are depicted in some of the following quotes:

> Religion is a culture of faith; science is a culture of doubt. —Richard P Feynman
>
> The man of science has learned to believe in justification, not by faith, but by verification. —Thomas Henry Huxley, Collected Essays of Thomas Henry Huxley
>
> You are right in speaking of the moral foundations of science, but you cannot turn around and speak of the scientific foundations of morality. —Albert Einstein
>
> Leadership is the capacity to translate vision into reality. —Warren Bennis
>
> Leadership is lifting a person's vision to high sights, the raising of a person's performance to a higher standard, the building of a personality beyond its normal limitations. —Peter Drucker
>
> Leaders think and talk about the solutions. Followers think and talk about the problems. —Brian Tracy

> The supreme quality of leadership is integrity. —Dwight Eisenhower

> If you want to be happy, set a goal that commands your thoughts, liberates your energy, and inspires your hopes. —Andrew Carnegie

> If you are bored with life, if you don't get up every morning with a burning desire to do things—you don't have enough goals. —Lou Holtz

In view of the above, it is essential to recognize an ethical perspective in our day-to-day lives and management to moderate consumption patterns and to have a sustainable peace loving society. The investment required for defense and wastage of money through malpractices can be reduced to a greater extent and this can be used for developmental work. Hence, it is very important to understand the real human development and focus on these issues while formulating new projects and policies.

17.4 Planning Education

Planning is a normative profession, and its practitioners seek to explore, define, and implement change in urban settings based, at least in part, on values and preferences. The challenges of every practitioner are very much to do with arriving at and enforcing norms in an effective manner. But to effect changes in a city, one must have some idea of what is good change, and what kind of conduct facilitates achievement of these good and acceptable outcomes. Assessment of what is good or bad in cities is political task at every level that planners encounter.

Planning education has therefore to be concerned with:

- Understanding models, frameworks, and theoretical perspectives under which professionals can assess ethical problems in planning;
- Evaluating the most important emerging trends and controversies in planning, marketing, etc. in an ethical perspective;
- Identifying the scope and effectiveness of professional roles within various institutions;
- Tracking the interdependence between political, social, economic, and technological issues in planning ethics; and
- Gaining skills in reasoning by resolving and explaining ethical problems both orally and in writing.

Although we are all more or less familiar with ethics, we are not likely to be familiar with important arenas of ethical concern integral to sustainability and urban management. Extending to global matters, ethics necessarily depend on individual human actors. Sustainability management can be seen to span across several kinds of management. Each of these entails a cluster of ethical concerns.

Ethical Pyramid: The ethical pyramid describes the different elements and degrees of abstraction in planning. The ability to keep upright not to get affected by material attractions, to lie and to take credit for something one has not done is indeed difficult, but possible with perseverance and proper understanding of whole purpose of life and intricacies involved. It is a continuous process and needs careful and constant reflection.

Fig. 17.2 Ethical pyramid. *Source* Johansson and Khakee (2009)

Public policy shapes how manmade and natural environments are managed and regulated. Sustainability practitioners must be able to understand public policy and its effects on tasks they are required to accomplish. The above course will provide students with a measure of sensitivity regarding environmental sustainability policy and the resulting laws and regulations in order to strengthen their abilities to understand, interpret, and react to future developments (Fig. 17.2).

There are many statutory regulations for urban and regional planning at various levels, but what is lacking is the spirit of these while implementing, lack of capacity of planning institutions, and people involved at field level. Several regulations are not in line with the practical and long-term vision is also responsible for deteriorating urban life.

17.5 Economic Incentives and Penalties

In order to ensure that rules and regulations are acceptable to public at large, economic incentives are given and penalties imposed if one transgresses. However, these instruments have their own limitations in the modern world. Superior purchasing power has the created following implications:

- Easy access through trade and other arrangements to natural resources in a globalized world from less developed to developed countries.
- Harmful wastes have been occasionally dumped at a price in poorer countries.
- Many countries resort to use of fertilizers and pesticides in pursuit of higher agricultural productivity without due regard for their ecological impact.

Market on its own cannot be expected to solve the problem of species that are approaching extinction. Survival claims of other forms of life, and ecological systems that are irreversibly being undermined and arrest of depletion of ozone layer must be recognized. A conscious society with a political will is required to bring solutions to these complex and long-term problems.

There are many manmade legal instruments, economic stimulants, and technical solutions but their effectiveness for overall development of society has its own limitations. In spite of increase in number of legislations, crime is also increasing. Although economic power has increased comfort, it is also causing wastage of resources and advantages of technological innovations have increased fuel efficiency but increase in number of vehicles has nullified these advantages.

Sustainable development calls for comprehensive change in the way society operates. Production and consumption must be restructured in ways that better meet the basic needs of all in an ecologically responsible manner. Population growth must be moderated and ecologically unsound practices quickly reduced and eventually eliminated. These steps call not only for practical action, but also for fundamental changes in perceptions and values, indeed for a renewal of culture that will enable societies to confront the major challenge of the twenty-first century: the quest for sustainable development.

17.6 Conclusions and Recommendations

Ethical values are the principal factor in social cohesion and, at the same time, the most effective agent of changes and transformations. Achieving sustainability will depend ultimately on changes in behavior and lifestyles, changes which will need to be motivated by a shift in values and rooted in cultural and moral precepts upon which behavior is predicated. Without change of this kind, even the most enlightened legislation, the cleanest technology, and the most sophisticated research will not succeed in steering society towards long-term goal of sustainability. Education in the broadest sense will by necessarily play a pivotal role in bringing about deep changes required in tangible and intangible ways. Based on the understanding of current urban development models, the following observations are made:

- Urbanization is the order of the day due to various reasons; hence proactive urban planning is required to ensure efficient and effective use of resources for inclusive overall development of society.
- The present trend of urbanization is driven by market without due consideration for ecological stability and long-term sustainability, this has to change.
- Population has increased 30 times in just 2000 years, but there is only one earth with limited resources. Though technological innovations helped to harness the resources efficiently for increasing population and consumption negating the advances made. So, harnessing of human potential itself by triggering human values which in turn moderate consumption and peaceful coexistence.
- Explicit responsibility towards future generations by implementing the precautionary principle and establishing Ombudspersons for Future Generations at global, national, and local levels.
- Acknowledge the fundamental importance of shared ethical and spiritual values in making the transition to a sustainable way of life.

- Create a green economy based on strong sustainability and adopt alternative economic indicators to GDP that include social well-being and ecological wholesomeness.
- Develop indicators reflecting the values and ethics underlying individual and collective choices and behavior necessary to achieve sustainability while incorporating and adapting to the diverse cultural, ethnic and ethical traditions of nations and peoples in order to formulate a more complete vision of goals and purposes of a sustainable and ever-advancing civilization and of desires for happiness and prosperity.
- Ensure that proposals for a new institutional framework for sustainable development, and related global governance reforms include a mandate of trusteeship for global common goods on behalf all people, the greater community of life, and future generations.
- Ensure that all have access to quality education for sustainable ways of living.

References

Chakraborthy, S. K. (2001). *The Management and Ethics Omnibus*. New Delhi: Oxford University Press.

Christoph, W., & Selvakumar, S. (2014). *Urbanization, Planning and Spirituality for a Sustainable World,* 8th All India Students' Conference on Science and Spiritual Quest, 1–2 February 2014, IIT BHU.

Johansson, M., & Khakee, A. (2009). *Ethical Urban Planning—Is there such a thing? A students text book*, U.K.

LEAD India (Ed.). (2002). *Rio, Johannesburg and Beyond—India's Progress in Sustainable Development*. New Delhi: Orient Longman.

Ravishankar, D., & Subhashini, M. (2001). *Sustainable Development—Ethics and Policy Initiatives",* Thiruvananthapuram, *Science India—The National Science Magazine*, Vol. 4, No. 6, pp. 24–29.

Salah EI Serafy. (2013). *Natural Resource Availability—Sustainable Human Development in the Twenty-First Century* –Vol II.

Transparency International. (2001). *The Corruption Perception Index*, Berlin.

UNDP. (1999). *Human Development Report*. New York: Oxford University Press.

UNICEF. (2014). *Contribution to the 2014 United Nations Economic and Social Council, (ECOSOC) Integration Segment-Sustainable Urbanization*, 27–29 May 2014.

World Bank (Ed.). (1995). *Ethics and Spiritual Values-Promoting Environmentally Sustainable Development,* Environmentally Sustainable Development Proceedings Series No. 12, held at World Bank Washington D.C., 2–3 October 1995.

Websites

http://sustainability.formas.se/en/Issues/Issue-3-October-2009/Content/Articles/Ethical-urban-planning–is-there-such-a-thing/

http://lisaschweitzer.com/2014/02/03/my-planning-ethics-syllabus/

http://sustainabilitytreaties.org/draft-treaties/

Part IV
International Perspectives on Planning Education

Chapter 18
The Place of Time in Planning Education

John Minnery

Abstract Planners tend to focus on the three dimensions of the physically built environment and neglect the fourth dimension of time. This chapter argues that for both planning practitioners and planning educators the discipline of time dimension is critical in a number of important ways. Planning, in fact, should be about yesterday and today as well as about tomorrow. The paper discusses some neglected aspects of planning for the future, draws attention to some aspects of the past that are similarly ignored, and then links past, present and future through the idea of 'path dependence'.

Keywords Time · Placemaking · Planning practice · Path dependence · Planning education

18.1 Introduction

An important focus for urban and regional planning is the physical environment, especially on 'place-making'. This is an approach that recognises the importance of place to individuals and communities, that recognises their attachment to place and that recognises the important role for planners and other built environment professionals in the creation and modification of places.

In fact, the principal area of urban and regional planning practice and education has been, for a long time, the physical elements of human surroundings. The focus has been the built environment as well as the social considerations leading to interventions in the built environment, the regulatory frameworks that provide the mechanisms for interventions, the environmental impacts of these interventions and the economic and political structures within which the interventions take place.

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Physically the built environment exists in three dimensions. Yet all physical objects also exist within a fourth dimension, that of time. This fourth dimension applies to all physical places and to the built environment. They all exist at some moment in time and are subject to the changes that stem from the passage of time. So planning practice and education that aim at the creation of better physical places should acknowledge that these better places are contained within an envelope of time. Both planning and planning education need to be about 'tomorrow, today and yesterday' (Minnery 1994). This means they should recognise planning's future orientation, its concern to improve present conditions and the lessons that can be learned from the past.

This link between time and space is explicitly acknowledged by Rio Fernandes and Chamusca (2014) in their study of the changing nature of retail trade in four countries in Europe over the last 30 years. As they note, retailing is a private sector activity but one where "the structure and location of which result mainly from the actions of individuals and firms in a given time and space" (2014, p. 170). In other words, the nature of this activity is shaped by both the place in which it occurs and the time trajectory it is located in. Their study also shows how retailing has changed and its regulation have changed since the 1940s and how these changes took different forms as well as occurring at different time periods in the four countries. The rate and nature of change depended on the location but the very fact that there were changes over time meant that the way retailing was understood and planned in the 1940s was inappropriate for conditions in the early twenty-first century. Similarly, as Li et al. (2013) show, the spatial diffusion of activities from urban to non-urban areas, with the resultant sprawl of development and threats to eco-systems, needs to be understood as a 'spatiotemporal' phenomenon, not just as a spatial measure. The time pattern of diffusion is as critical as spatial diffusion.

Perhaps the most basic level planners need to recognise that it takes a long time for implementation of plans. Again, Li et al. (2013) study clearly demonstrates how patterns persist over time. A lot of effort might go into producing and getting a plan approved; and it might then take decades before the results are realised. Unless this time dimension, and the uncertainty that stems from it, is recognised the contextual and contingent events can easily overtake and destroy the intentions of the plan.

Urban and regional planning is a future oriented practice and profession. Its emphasis is on the future, on the changes that have to be made to reach a more desirable prospect from an existing state of affairs. In this paper, I will consider some of the important aspects of this future focus, then look at lessons from the past studies and then link the trajectory of the past, present and future through the ideas of path dependence. This will culminate in some pointers to some of the prospects for urban planning and planning education.

18.2 The Future-Sustainability and Resilience

There has been a shift in how the future is viewed by planners. Once, the aim was the creation of a better, more pleasant, end structure of land use planning as well as built forms. This was the approach with, for example, 'blueprint' and master-planning. As environmental concerns became more compelling, and there was increased recognition of the limits of the earth's resources, longer term sustainability got into the centre stage. Questions of social justice were also linked to sustainability. Planning was not just about a better future but it was also about a better future that would last far longer, require the commitment of lesser amounts of non-renewable resources and lead to socially sustainable communities. More recent concerns with climate change have brought planning for catastrophes and disasters into focus. The rhetoric about planning for climate change is about mitigation and adaptation; and planning for the hazards and disasters that will accompany severe climate change invoking the rhetoric of resilience. Mitigation, adaption and resilience are all ideas that are concerned with the results of change over time and the ways that planners can enhance the positive aspects of change through developing more resilient communities, for example. The idea of resilience focuses on the future and how planners can deal with probable natural and human disasters. But the different ways that resilience can be interpreted or defined invokes different relationships between the present and the future. There is an engineering idea of resilience, where the thing being considered is a city, a community, or a beam. Here, resilient can rapidly return to its original state when subjected to stress and the stress is then removed as in the case of a disaster, or after applying pressure to the beam. But there is also a concept of resilience, loosely called ecological, where the thing being considered (a city, a community, a system, but probably not a beam) can move to a state that is more adapted to new conditions after it has been subjected to stress. For example, using resilience in this way, a community may adapt its housing, or develop new communication systems, or set up new institutions that will enable it to cope better with future disasters. A simple example of the difference between the two kinds of resilience can be seen in the ways that infrastructure is rebuilt after a disaster. The first form of resilient behaviour would see bridges and roads reconstructed rapidly to their former standards and in their former locations after a disaster. The second form of resilience would see roads and bridges built in better locations and to higher standards so that they can better cope with future disasters.

In these two approaches the difference between the present and the future is stark. In one, the future is much like the present. In the other, the future is a better and greatly improved form of the present.

But what if there is limited resilience? What if predictions or forecasts for the future are found deficient? The potentially disastrous impacts of future climate change have already been referred to. Climate change is not the only massive future danger to cities that we may expect though. World urbanisation and the problems of urban poverty and urban slums are trends that the world cannot deal with adequately

at the moment and which are certain to continue to haunt us. Planners around the world cannot deal adequately with urban poverty, urban slums or the critically important informal urban sector. Perhaps, in the way suggested by Birkmann et al. (2013) about dealing with climate change we need to consider new tools so that those who are teaching future planners need to consider teaching about new tools. Birkmann et al. (2013) suggest both new planning tools for climate change adaptation and new forms of strategic planning.

Thus there are many questions about the future for both planners and planning educators. They range from a simple question about how best to negotiate or navigate the long period between plans and their final realisation (through incorporating ideas of flexibility and multi-use? through careful phasing of projects? through better monitoring to allow changing conditions to be incorporated?) to more complex issues about what we mean by long-term sustainability and community resilience. Planning education is professional education for applying in the real world and so planning educators have two roles in relation to the future. One is to identify and discover better ways that planning itself can deal with these questions. The other is to educate students so that they themselves will be able to answer these questions and help create planning tools, methods and systems that can better deal with future complexities.

18.3 The Past: Which Past and Whose Past?

As Marsal-Llacuna and López-Ibáñez (2014) note, many approaches to modern planning are based on outdated values, models and standards. There is a need to think afresh about the sources of past approaches and whether they are appropriate or adequate for the modern day, let alone suitable for future developments and uncertainties. In a similar way, we can reflect on the sustainability of present patterns of city growth and development by researching the impacts and changes that have resulted from past developments (such as the analysis by Romano and Zullo (2014) in their study of 50 year change on the Adriatic coast of Italy.

In learning from the past, however, there are two critical aspects for planners and planning educators. One is the question of which elements about the past are the most significant and for what reasons. To give an example from my own research, the historic industrial town of New Lanark in Scotland is a very significant, even iconic, settlement from the urban planning and social history point of view (Minnery 2011). It was started by David Dale at the end of the eighteenth century but then expanded as a model settlement by his son-in-law, Robert Owen, in the nineteenth century. It illustrates the early roots of British planning and social reform, including good quality housing associated with industrial employment, facilities provided for the workers and residents, an Institute for the Formation of Character, a school, and so on. By the early twentieth century, however, the cotton-spinning industry on which it was based was no longer viable, the factory had closed down and the housing, although exceptional by nineteenth century standards, did not conform to

twentieth century building regulations. Yet, when attempts were made to gain official heritage recognition for the town, they were frustrated by the tendency in Scotland to identify important heritage structures only as those associated with royal and aristocratic history, or with grand architecture. This small industrial town with significant historical elements was, originally, not considered worthy of special heritage status. After continued agitation, this attitude gradually changed and now the town has been granted World Heritage status. Interestingly this does not give it any special direct protection through the Scottish town planning system.

The second major consideration is, to some extent, tied to the first. It is the question of whose history we are dealing with. Cole's (2013) study of neighbourhood change highlights the role of residents' perception of the changes around them: "(r)esidents see neighbourhood change through a prism in which historical trends, economic and social histories, housing market pressures, migration patterns and various policy initiatives come together (or collide)" (Cole 2013, p. 77). In relation to New Lanark, whose history was expressed through the town's built environment: Robert Owen and his social reforms? or the early history of town planning ideas that were about combining employment, housing and services or the history of large scale mechanised production in the U.K. or the lives of working class people of the eighteenth and nineteenth century in Scotland? Whose history was being celebrated?

Another example links the question of 'whose history' with the question of 'whose city is being planned'? McAfee's (2013) study of the evolution of strategic planning in Vancouver shows how the early plans from the 1930s to the early 1990s focused on the central city and were seen as expert plans prepared by expert consultants and planning officials. From the 1980s, there were metropolitan plans that drew on advice from invited stakeholders providing public inputs. From the mid-1990s, the metropolitan strategic plans deliberately involved the wider community who not only provided inputs to the plans but also helped choose goals and desired outcomes. Assuming such changes are occurring in other places, then planning educators need to be aware of the changes to the ownership of strategic plans and modify their approaches accordingly.

18.4 Linking Past, Present and Future

Urban planning's focus on the future has the likelihood to reduce the importance of history. The past is also important, but not just for its own sake. It is "the unfolding of processes over time that is theoretically central" (Pierson 2000, p. 264, cited in Cole 2013, p. 78). It teaches us about the unfoldment of structures and methods embodying them.

So what is important for planning is not the events of the past by themselves, the conditions of the present and desires for the future by themselves but rather the combined trajectory through the past to the present and into the possibilities of the future. This trajectory is not without its constraints and the missing links. A useful

concept explored here is the idea of 'path dependence'. This idea helps to explain why planners continue to apply methods and approaches, and teach about these methods and approaches, long after better alternatives are available.

The idea of path dependence was initially conceived as an economic theory by Arthur (1989) and David (1987) to explain how particular technologies remain in place even when better alternatives are available. Low and Astle (2009, p. 48) summarise this idea as being of "self-reinforcing mechanisms that exist in the logic of production to ensure that a type of product prevails in the market even though better alternatives exist". In the mainstream path dependency approach there are three distinct phases:

- The 'critical juncture' or contingent event that prompts the initial movement towards a specific 'path' or course;
- The subsequent reinforcing period where the 'path' becomes more established through elements of self-reinforcement and positive feedback (or in economic terms, increasing rates of return); and finally (or possibly)
- The end of the path where new events 'dislodge a long-lasting equilibrium' (Pierson 2000b, p. 76).

Path dependence has since extended beyond the remit of economic theory, first by extending to the institutions and organisations that embody the competing technologies (North 1990; Pierson 2000b) and then to a number of other fields where there is a need to understand why 'organizational and institutional practices are often extremely persistent' (Pierson 2000b, p. 76).

Three elements or forms of path dependency were identified by Low and Astle (2009) in their study of planning and public transport in Melbourne:

- Technical dependency, where the path and its 'lock in' come from dependence on a particular form of technology—for example, in many cities dependence on the motorcar as a form of transport has locked planning into particular urban forms, and in addition continuing dependence on the car has led to dependence on the infrastructure that supports it such as parking garages and spaces, petrol stations, houses designed with garages (see Marletto 2011);
- Organisational or institutional dependency relating to the agencies and institutional arrangements that govern policy. In planning terms, this includes the institutions that shape urban form and structure as well as transportation facilities and the like. There overlaps here with technical dependency because many institutions' very existence depends on supporting or reliance on a technology. Examples include manufacturing companies locked into particular production methods, but also departments of main roads which are locked into supporting cars and trucks;
- Discursive dependency, which is related to the 'storylines' that organisations and agencies use to explain and identify the problems and issues that they address. Such storylines can also be connected to the disciplines or sub-systems within organisations, in the way that engineers identify and address urban problems in a different way from, say, planners (Imran and Matthews 2011).

The ideas of path dependence provide researchers with a tool to view historic trends from a different perspective and provide insights into policy development. All these studies show that change is not easy because existing regimes and institutions are characterised by '*lock-in*' that is oriented towards predictable trajectories (Woodlief 1998). Thus, many planning agencies are locked into particular ways of determining urban planning, and the institutions that provide professional education for these planners are locked into teaching about the mainstream planning system. Town and country planning faces an additional lock in factor, in that the built environment is relatively long lived. Roads and other transport links have been in their current locations possibly for centuries; structures, once built, remain in place for a long time. All these structures and their future transformations depend on various inevitable parameters and constraints imposed by geography, history and society.

However, change does occur in both planning and the built environment, albeit slowly. Modifying institutions is one way or as Pflieger et al. note, alternative trajectories can be launched "based on local, accidental events, such as elections, a change of government, a technological innovation or a decision taken at the national or international level" (2009, p. 1434). Participation by outsiders can also play a significant role in breaking away from path dependence because outsiders are not bound by the discourses of '*actors*' within the regime and can deliberately create new trajectories (Bunker 2012; Upham et al. 2013). For town and country planners, opportunities do present themselves when buildings or infrastructure reach their use by dates or tend to outlive their utility and new needs confront. Structures have a lifecycle. As do precincts and suburbs. A critical juncture can be reached when a decision has to be made about whether to preserve or enhance a structure or place or whether to replace it or renew it. At such junctures, trajectories can be changed.

Path dependency theory is not without its critics and failings. It can easily become a mechanistic view of the past and the possible future. The events of the past can be seen as so critical that the future is seen as immutable, that we are embarked on a path from which there is no exit. In addition, for something as complex as the urban environment, there are many factors acting together so that there may be several paths being followed simultaneously.

But overall path dependence provides a useful tool to analyse barriers to change in planning and policies. It provides a structured approach to understanding policy development including policy making over time, enabling researchers to form a greater understanding of how and why cities develop differently and identify possible triggers for change? It also helps identify barriers to change in educational systems that can be locked into particular teaching technologies, or teaching about and for particular institutions, or using particular discourses to identify problems and issues to be addressed through education.

Path dependence can be applied to both urban and regional planning as an activity and to the education of planners. The planning and educational systems of Australia and India provide useful case studies. Both countries were colonised by the British; so the planning systems in both countries are based on the British

system. Because English is the main language in both countries, planners and educators tend to look to the Anglophone world for models. Just imagine how different both countries would be if they had been colonised by, say, France or Russia. We are both located on a trajectory that started in London. There have been some shifts in this trajectory over time, with independence, with the growing influence from other Anglophone countries such as the United States, and with changes that both countries have assimilated from changes that have occurred in Britain (changes in planning theories would be a good example). But it would require a major upheaval to shift either country to a non-British trajectory. Perhaps, it is time to consider whether there is a better alternative and whether efforts should be made to change this trajectory.

18.5 Conclusions and Prospects

In assessing the role of time in planning and planning education, we would do well to separate the two approaches that are also fundamental in separating models of policy making, of city development and of planning itself, for instance, by separating normative concepts from descriptive concepts. It is too easy to slide from describing what is happening (description) into laying out a prescription for what should happen (norms)? Of course, nobody can accurately describe the future, but we can take a relatively objective look at what is likely given the present trajectories in urban and regional planning and in planning education.

The more likely i.e. descriptive view of the prospects for planning and planning education is located on a path or trajectory that is already well under way. Planning practices are most often tied to local legislation, to controls and regulations with a long history, to tools and methods that derive from historical values. If planning practitioners and planning educators recognise this, they can then seek ways of breaking away from this trajectory. New technologies being incorporated into planning, such as social media and global communications networks seem to offer a critical juncture and opportunity that may enable a wholesome break from the past. An interesting example that suggests such a break is possible and is reported by Marsal-Llacuna and López-Ibáñez (2014) in their efforts to link land use planning to time use. In creating a branch in the current trajectory, though, planners should be cognisant of the lessons of the past. New technologies and trajectories have often created new problems. The lesson that is important for both planning practitioners and planning educators is that both should continue to be about ‘yesterday, today and tomorrow’. Planning is certainly about time as well as about place.

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References

Arthur, W. B. (1989). Competing technologies, increasing returns, and lock-in by historical events. *The Economic Journal, 99*, 116–131.

Birkmann, J., Garschagen, M., & Setiadi, N. (2013). New challenges for adaptive urban governance in highly dynamic environments: Revisiting planning systems and tools for adaptive and strategic planning. *Urban Climate, 7*, 115–133.

Bunker, R. (2012). Reviewing the path dependency in Australian metropolitan planning. *Urban Policy and Research, 30*, 443–452.

Cole, I. (2013). Whose place? whose history? Contrasting narratives and experiences of neighbourhood change and housing renewal. *Housing, Theory and Society, 30*(1), 65–83.

David, P. A. (1987). Clio and the economics of QWERTY. *The American Economic Review* (Papers and Proceedings of the 97th Annual Meeting of the American Economic Association) *75*(2), 332–337.

Imran, M., & Matthews, L. (2011). Discursive path dependence: Keeping the supremacy of road-based urban transport planning in Auckland. *Road and Transport Research, 20*, 41–57.

Li, J., Li, C., Zhu, F., Song, C., & Wu, J. (2013). Spatiotemporal pattern of urbanization in Shanghai, China between 1989 and 2005. *Landscape Ecology, 28*, 1545–1565.

Low, N., & Astle, R. (2009). Path dependence in urban transport: An institutional analysis of urban passenger transport in Melbourne, Australia, 1956-2006. *Transport Policy, 16*, 47–58.

Marletto, G. (2011). Structure, agency and change in the car regime. A review of the literature. *European Transport - Trasporti Europei* 71–78.

Marsal-Llacuna, M. L., & López-Ibáñez, M. B. (2014). Smart urban planning: Designing urban land use from urban time use. *Journal of Urban Technology, 21*(1), 39–56.

McAfee, A. (2013). Tools for change: *CityPlan* Vancouver's strategic planning process. *Built Environment, 39*, 4, 438–453.

Minnery, J. (1994). Planning and teaching for tomorrow, today and yesterday. *Australian Planner, 32*(1), 56–58.

Minnery, J. (2011). *The challenge of change at New Lanark*. Paper presented at the 14th society for American City and regional planning history conference. Baltimore, 17–20 November.

North, D. C. (1990). *Institutions, institutional change, and economic performance*. Cambridge: Cambridge University Press.

Pflieger, G., Kaufmann, V., Pattaroni, L., & Jemelin, C. (2009). How does urban public transport change cities? *Correlations between past and present transport and urban planning policies, urban studies, 46*, 1421–1437.

Pierson, P. (2000a). Increasing returns, path dependence and the study of politics. *American Political Science Review, 94*(2), 251–267.

Pierson, P. (2000b). Not just what, but when: Timing and sequence in political processes. *Studies in American Political Development, 14*, 72–92.

Rio Fernandes, J., & Chamusca, P. (2014). Urban policies, planning and retail resilience. *Cities, 36*, 170–177.

Romano, B., & Zullo, F. (2014). The urban transformation of Italy's Adriatic coastal strip: fifty years of unsustainability. *Land Use Policy, 38*, 26–36.

Upham, P., Kivimaa, P., & Virkamaki, V. (2013). Path dependence and technological expectations in transport policy: the case of Finland and the U.K. *Journal of Transport Geography, 32*, 12–22.

Woodlief, A. (1998). The path-dependent city. *Urban Affairs Review, 33*, 405–437.

Chapter 19
Planning Education in an International Perspective: Making the Most from Global and Local Knowledges

Raffaele Paloscia

Abstract Central to my academic experience, teaching and research, is the development of theoretical and methodological approach called *Territorialist Approach.* Its central concept is *territorio* as manifest in space and time, and of the convergence of the local and global knowledges expressed in specific contexts from the different types of man-nature relationships to the culture of work and production, from local social practices and ways of life to the different physical, historical, and architectural components of urban and rural fabrics. All these elements constitute the multifaceted and ever evolving cultures and identities of places, cities, and regions generating the very specific physical and emotional landscapes when territories relate to their inhabitants. *Territorio*, considered as holistic common good, represents the main resource for both the general well-being of local communities and their significant and indispensable belonging at a global level. Planning education must stem from the awareness of that meaning of what are the resources, local and global, available to produce the desired effects of planning action on a specific area, where inhabitants are the fundamental actors in the process of transformation of their own *Territorio*. Theoretical tools to investigate and methodological-operational tools to enable the use of these resources in a proper way must be identified by university and other educational institutions in order to ensure an ethical and progressive transmission of knowledge to the students. This is possible only if a multidisciplinary approach is derived in the scientific arena and if the academic knowledge is opened to include local specifics. A few experimental paths in this area are LabPSM, as part of a wide national and international collaborative effort. We have been exploring during the last decades along with development of research activities, educational methodologies, whose main focus is innovation in human resource training and promotion and enhancement of values and potentialities of local territories. By working out and testing multidisciplinary courses, seminars, international workshops, and summer schools in various countries, our efforts are intended gradually to increase the awareness among academic

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circles and to train students as future professionals in the field of representation and operationalization of local territory and its tangible and intangible resources. A particular attention has been paid to the use of innovative media use and other articulations familiar to new generations to investigate, decode, and represent urban analysis results and consequent plans.

Keywords *Territorio* · Common good · Local-global knowledge · Multidisciplinarity · New languages

19.1 Introduction

Planning is about politics, policies, rules, processes, and projects for an efficient and fruitful spatial organization of resources. Its main objective is to balance the needs of economic activities and ensure better quality of life to all people, with particular attention to the weak and the poor in the society. The latter should be the very first beneficiaries of planning actions. Distributive justice or interest of the collective in preference to securing the advantage of a few has to be the way forward. Acting at different scales of intervention like neighborhoods, villages, rural areas, cities, metropolises, regions, nations, planners could achieve their distributional goals. This has very much to do with the environmental, economic, social, and cultural sustainability of physical transformations as part of the living and surviving in the present day globalized world.

Towering over all of the great changes in the world, the unstoppable process of globalization continues, with its pervasive, universal and varied impact. This is also a fact that metropolitan cities are absorbing all the capital inflows, information and innovations. They have become the centers of supranational government economies and finance. In addition to older global cities, all in the North, defined on the basis of common characteristics, ways of changing, and internal contradictions (Sassen 1992), new huge cities are more and more on the scene in a variety of roles and dynamics (UN Habitat 2013; also see UN Habitat 2011), committed to play their leading roles, and are located in the global south. Notable among these are Beijing and Shanghai, Mumbai and Bengaluru, Sao Paulo, Johannesburg, Seoul, Mexico City, Buenos Aires.

The turn of the millennium has in fact also brought with it a profound geopolitical upheaval. A sharper iconic acronym identifies new global powers known as the BRIC, i.e., Brazil, Russia, India, and China. In addition new countries (S-South Africa, M-Mexico, I-Indonesia, T-Turkey) have joined together with their populations, strategic, and financial resources to form significant groupings. In the recent transformation processes, differences, locally specific cities are strong, but many phenomena and ways to produce their built environments, mainly in largest cities, are very similar.

Hubs of finance, business, international transport, luxury residences, and sports events are planned with profit motive and designed by ubiquitous archistars, as driving forces for spectacularization effects (Lehrer 2004). No care at all, in this global competition, to represent the specificity and identity of the involved places and people living there is regarded significant. These motives and measures contradict the rhetoric of globalization as positive unification of the planet and can be synthesized in a word: fragmentation. A disruptive and selective process in the cities and territories is largely the effect of the new geography of centrality and marginality, functional to the spreading of global processes.

Results of selection of spaces through various mechanisms have resulted in fragmentation of the fabric of the city. On a larger scale, partitions seem to rewrite zoning for single-purpose areas: agriculture, industry, trade, tourism, residences causing further fragmentation of places. Fragments of agricultural and forestry land of enormous sizes in poor countries and regions, grabbed by transnational holdings and state companies to produce food and more and more of biofuels much required in the global market for energy.

Built fragments often surrounded by walls and fences are home to several businesses: holiday villages, clubs, resorts where the quality of landscape, sea, nature fits the desires of the globalized tourists; malls, supermarkets, outlets, and places of globalized mass consumption, recognizable by almost absent parking areas, in the new densely crowded areas; export processing zones, located close to large container ports and at the borders between low and high income countries (Paloscia 2012).

These fragments are reproduced everywhere in the world embodying the same trends, architecture, space, and work organization. They become estranged from the small local economies and the latter are damaged and often destroyed causing waste of land and resources, increasing pollution, territorial degradation, limiting the accessibility of land to local communities, expropriating part of their habitats, and privatizing collective resources and the commons.

Different kinds of fragments are the gated communities, a part of the urban landscape as limited sections of fortified luxury residences. Recently they have been spreading all over the world cities and modest middle class urban areas including an increasing number of activities and services for the daily life of inhabitants (Marcuse 2002), eager to minimize the risks connected with the poor and insecure parts of the city.

Outside the growing fragments there is the formal city, supposed to be subjected to the rules and practices of planning, and the informal one without such regulations and depending on multifaceted ways of using its spaces to survive (Davis 2006). These are increasingly intersecting with the most affluent areas (Angotti 2013) and separated by barriers not physical but psychological, with variable dynamics of inclusions and exclusions (Roy 2011). But here we do not go deep into this serious question.

19.2 Approach

How to act as a planner in these specific areas after being aware of the general issues? How to define proper, updated training methods, and programs? There are many schools of thought and theoretical and methodological approaches resulting from different cultural traditions that can help in singling out ways to practice and teach planning in a very wide sense. Here, I introduce some personal experiences as a planner and as an academic.

Central to my academic experience is the theoretic and methodological, the so called *Territorialist approach*, as it comes out from a few decades of teaching and doing research on planning theories, methodologies, and practices as being part and founder in the late eighties of a group quite renowned in Italy and somewhere abroad as *Scuola Territorialista,* which recently gave rise to the *Società dei Territorialisti* (Territorialists' Society (www.societadeiterritorialisti.it). Its key concept is *territorio* as the adding up of physical, built, and anthropic environment defined through a coevolutional process very much similar to that of a very complex living organism.

All these elements define the multifaceted and ever evolving culture and identity of a place, of a city, of a region, generating the very specific physical and emotional landscapes that link territories to their inhabitants. *Territorio*, considered as a holistic common good, represents the main resource for both the general well-being of local communities and their significant and indispensable activities at the global level.

As territorialists we have been always speaking of S*elf-Sustainable Local Development* (SSLD) intended to depend on locally accessed environmental, cultural, social, economic, and political resources (Magnaghi 2005). These are closely linked and inseparable and contribute to the SSLD. Following are some the ways in which these contribute to SSLD:

- Enhance the capability and provide the tools for self-government and communities' participation in the study, planning, and management of cities and regions where they live;
- Promote and safeguard development and the sustainable use of ecosystems and the well balanced environmental quality in general;
- Contribute to a locally sustaining economy which is focused on endogenous human and physical resources and also become a part of the global output;
- Giving true value to the cultural identity of the places in an inclusive and fair manner.

The goal of SSLD is something reachable through a vigorous action in synergetic relations quoted before. This is a process whereby the involvement and research and action initiatives of planners can result in a significant fruitful contribution.

Local, to be clear, is intended independently of size. It could be a small village or a city or a wider region. Each of them is very much defined by its identity—specific

endogenous features open to dynamics of development—and at the same time by its ability to be part of wide, horizontal, and not hierarchical networks connecting it with the global systems.

The picture is more like a community oriented and livable cities and regions, of an environment that is projected into a self-sustainable future, re-establishing all the links between the urban context and the rural and non-rural hinterland, and at the same time strengthening its synergy and cooperation at a national and international level (Paloscia 2007).

The central role in this process is played by the *patrimonio territoriale;* Italian terms not that easy to translate as the word *territorio* is more or less corresponding to 'local heritage' in a wide sense. It should be considered as the main multifaceted collective resource to be investigated carefully in order to know its various components, and to share them with all the inhabitants. A resource that should be protected through planning regulations and consolidated local customs, and should be reproduced and increased through short, medium, and long-term transformation projects.

Patrimonio territoriale, as intended here, is the result of space and time, and of the convergence of the local and global know-how expressed by a specific place or spatial context: from the culture of work and production to the different types of landscapes, from local practices and ways of life to the different physical, historical, and architectural components of the urban fabric, and so on. All these elements define the multifaceted and ever evolving culture and identity of settlements and more generally of the bioregions, which are the main resources for the general well-being of the communities that live there.

At the same time *Patrimonio territoriale* is a key factor for a significant and well-defined presence at a global level, a feature that, in the contemporary world, cannot be ignored. Operational tools to define the conditions to deeply know and use it in an appropriate and fruitful way become a strategic issue to be identified and processed. One of these specific and essential tools is education of new generations of planners.

19.3 Discussion—Planning Education

Planning education must stem from the awareness of what are the resources, local, and global, available to produce the desired effects of a planning action in a specific area, where inhabitants are the fundamental actors in the process of transformation of their own *territorio* and where planners are supposed to offer their professional expertise to help in reaching the planning objectives.

Theoretical tools to investigate and methodological-operational tools to implement the use of these resources in a proper way and with appropriate rules must be identified by academics in order to produce ethical and progressive transmission of knowledge to the students of planning.

As we know, planning and its teaching proceed often too slowly compared to the society's needs and changes, the transformations and evolution of the urban and regional spaces, and the cultural impact they produce for youth and students in particular. Everyone agrees on the need to innovate the content of the training programs in schools of planning through new perspectives given the centrality of the principles of environment, economic, social, and cultural sustainability. But beyond the claims, this is quite a complicated task and the paths required to be followed are often complex and incoherently multidirectional.

Basic preliminary parameters to be shared in designing planning educational programs have to be listed. The hope is that something fruitful would come out for a discussion with colleagues from different countries. These parameters are representative of different layers of educational activities. These are:

Methodology	Multidisciplinarity
Range of action	Internationalization
Knowledge	Local and global
Knowledge Tools	New languages

19.4 Methodology—Multidisciplinarity

Planning cannot proceed as a field of theories, knowledge, techniques, and tools designed to manage the space separately from other disciplines that deal with the city, land, and environment. It is necessary to overcome the linear and sectorial approaches that lead to the separation of knowledges with a reductionist view, imbued with technicism, aiming to consider the territory as a segmentable tabula rasa, neutral sum of various components that are disjointed whose resources can be used one by one in a way functional to external exploitation.

It should be taken as a multidisciplinary approach, operating to analyze and manage the complexities of sites, starting from the interaction of their different components—economic, social, environmental, cultural, ethnic, etc., to reconstruct an image that is multifaceted, but unified, independent, and equipped suitably to serve specific needs.

It is essential therefore for teaching in urban planning to define, deepen, and continually update specific knowledges and technicalities of the discipline, which give it its scientific legitimacy over time. At the same time it is equally essential to promote a set of educational activities that move in a common area of convergence of all these fields of knowledge that intersect, overlap, contaminate, influence, and feed each other in outlining the multifaceted reality of places and spaces. It is here that the students must be prepared to intervene with analysis, integrated plans, and projects.

On this front, it should be emphasized as converging trends to multidisciplinarity are in action in all fields of knowledge. When the theme of the transformations of

the space is central, specifically the city and territory, the various disciplines tend to develop new approaches, both in research and teaching, in the direction of a unitary and non-sectorial reality. Some examples (Magnaghi 2014) are:

Planning	Identity and participatory planning
Agronomy	Multi-sectoral and integrated rural space, zero-food miles agriculture
Environmental Sciences	Bioregion, nature-culture integration
Archaeology	Ecomuseums, museums of the territory-Hydrogeology integrated plan of river basin
Economics	Local production, multi-sectorial no profit networks, short supply chains
Anthropology	Innovative life styles, use of common goods
Philosophy	Relations between thoughts and places
Medicine	Narrative medicine, patient as individual in his environment
Engineering	Geography, Jurisprudence, History of Art, etc.

In this framework of multifaceted disciplinary contribution, when called to configuring transformations, the planner has to be the technician, who in possession of adequate preparation that allows a comprehensive view of the urban phenomenon, has the right skills to promote, facilitate, and coordinate interventions in an area. It is therefore necessary that the university is able to provide the appropriate knowledges to student planners to do so.

19.5 Range of Actions—Internationalization

Internationalization seems to be a keyword charged with perspectives and innovative values, a sort of reference point widely shared among those characterizing the current phase of profound general crisis with new and dynamic challenges induced by it for its overcoming whom the majority of societies are sticking to our topic, and the universities are crossing through.

This is an element that becomes increasingly important and urgent international perspective that records, in a progressive manner over the past two decades, the tumultuous changes preventing its equilibrium. Nowadays any remaining significance of outdated divisions between developed and developing countries between global north and south are no longer geopolitically sustainable.

In a globalized world, from any point of view one may want to look at it, the internationalization appears as an obligatory path, an essential tool for scientific research and advancement of knowledge, regardless of the values to which schools of thought and fields of investigation can refer.

Whether it is strongly market and profit oriented research, pure and basic research in cutting-edge fields, development of new technologies for the great

climatic and environmental changes or investigation and design research or action anchored to the specificity of places, there is a need for a supranational action, seen as a more and more essential condition for discussion and practice of science in the broadest sense, whether theoretical, methodological, or more directly applicative.

It appears increasingly indispensable to widen observation and exchange of experiences with a view to effective reciprocal opening and comparison. We should do the study of different theories, policies, methodologies and instruments, products, synergies, and dissemination of innovative approaches oriented to an advance of knowledge and immediate effects for spreading human well-being. This is very true with regard to planning interventions at different locations and scales. It appears much fruitful that every academic is experienced in international networks, the comparison of different contexts in history, culture, geomorphologic, social, and economic characteristics, and a wide range of solutions to cope with urban, environmental, and territorial issues.

University education in arranging the various levels of learning and specializations must of course stick to this shared need, promoting and supporting, with adequate financial means any kind of international exchanges considering it indispensable basis for the training of students and young researchers. From this point of view, recently the European institutions seem to have acquired full knowledge of the issue and are finally taking it very seriously. In the research area, the new and well-funded seven years program, *Horizon 2020,* is liberalizing participation to EU projects to all non-European countries, something which was very complicated earlier.

In parallel, the *Erasmus* program, the most important students' exchange program for non-European students and scholars has been totally revamped. It has allowed with great success in the last decades the participation of very large number of students, but only if enrolled in European universities, raising the expectations of many young people eager to cross the thresholds of old Europe. The introduction of the new *Erasmus Plus* programme has finally overcome this gap, widening the possibility of students exchange to all countries of the world.

19.6 Knowledge—Local and Global

As awareness of the negative effects of globalization spreads, the process of standardizing and thus strongly undermining cultures and identities, historical roots, modes of production, craftsmanship, lifestyle, fruits of the earth both in the urban areas and in the country side, the need for restatement of the relationship between local and global will also increase.

The destructive effects on everything that does not respond to the logic of the global market require the definition and establishment of a new hierarchy between different levels of knowledge. It should return a central role in everything that each specific site has produced over time in a continuous process of adaptation, often

naturally sustainable, between man and nature, between inhabitants and their surrounding environment.

The concept of *Patrimonio Territoriale* condenses what this process can do everywhere. Its sustainable development depends on the ability of local communities to preserve existing resources by putting them to good use and making them functional in a positive way and becoming a part of globalized future. It is something indispensable and vital as its presence in the arena of international relations is well understood.

In recent years in Latin America (Gudynas 2011), there is an increasing experience about suggestions and teachings which can be sourced. Innovation in the process of reacquisition and new appreciation of what native cultures have produced and settled over the centuries, resisting pervasive and destructive globalizing processes is quite significant.

In this vision it is of great importance to involve younger generations specifically students being the future planners. Their learning and practice should be aimed at training in the field of analysis, representation, and valuation through sustainable projects locally and their tangible and intangible resources. It is important to stress the inherent potential of the *Patrimonio territoriale* in creating the opportunities for professional work in various fields, while improving the condition of the local society and exploring their resilience or absence of it.

At the same time we must reject the isolationist and autarkic attitudes against the large adaptations of global knowledge and of transnational scientific research. It should aim to maintain and enhance what is ethically justifiable and what is devoid of the purpose of domination and exploitation by vested interest aiming to define everything in terms of established invariants and aspects universally shared and transmitted to build the idea of a generalized development and wholesomeness. A global knowledge to the service of humanity in its global dimensions then can be achieved in different contexts and in the synergistic intersections with local knowledges.

19.7 Tools—New Languages

In educational matters the key issue is the ability to communicate with the younger generations. A relatively high proportion of lecturing could be ineffective and unattractive to students. One should be able to alternate traditional ways of teaching, not easily replaceable especially for some scientific areas, with new idioms, styles or languages, highly interactive, able to attract and retain the attention of young people because they stimulate their desire to participate actively and bring out the personality and attitudes helpful to the success of the collective learning process.

If we adopt the idea of multidisciplinary approach in the teaching of planning, the language used can vary widely, incorporating all those fields that can be more or less directly involved in the organization and articulation of the uses of urban space

and the surrounding environs. These are numerous. Here some tools and techniques already used in the experimental courses of education in planning are quickly mentioned. Art in its various forms is certainly an element with a high potential.

There is a growing interest in planner–artist collaboration in different scales of contemporary planning practice and innovative research. Artists-led activities could work as a powerful vehicle of communication in the planning process (Metzger 2011) and at the same time improving planning education. Artist workshops and performances in public urban spaces and in wider open areas can provide original and effective, perceptive and intuitive elements to open up new possibilities in the potential uses of space and design ideas to give it a different organization.

Complexities of cities and regions are something difficult to teach through traditional teaching methods and tools. The areas of concerns of planners and planning educators can be widened by collaboration with the artists' worlds, thus giving a fruitful contribution to develop at the same time planning practices and training methodologies (Sandercock 2005).

If our objective is the identification of new perspectives for teaching various branches of planning practice and as it is to devise innovative methodologies for exploring, interpreting and achieving the full value of the local potentiality, heritage and community action to promote participatory planning projects, then one must take note of a wide range of activities which are at the frontiers of planning discipline. This is all the most important as we might even say indispensable as the object of study, research, plan moves in the making of a formal plan. For it is essential for a massive change of practice towards alternative methods and tools, which are yet to be deeply explored.

A short list of examples of tools, very much connected with innovative media and intended as potential ways to involve young generations in activities to increase the knowledge of the local *Patrimonio territoriale* could include: video making, storytelling, interactive cartography, enlisting of local and global music, emo-mapping, comics in participatory planning, photography, model building, multi-ethnical sports, facades painting and so on. New languages immediately perceivable by students and effective in getting them to grasp the mechanisms of use of space outside the formal rules of town planning are critical to the development of planning education.

With reference to my personal experience, the testing of these tools is currently underway in an Italian–Caribbean cooperation project between the LabPSM (Laboratory Cities and Territories in the Southern Countries) of the University of Florence that I coordinated, and the EBCCI (Errol Barrow Centre for Creative Imagination) of the University of the West Indies based in Barbados.

Its goal is to establish an educational program that takes into account a unified and inseparable way the two components of a self-reliant and sustainable development: human potential specifically students, and the territorial heritage. Based on this, the project aims to stimulate and train the students, first through the transfer of methodologies, and second, the tools aimed at consciously producing new knowledges.

References

Angotti, T. (2013). *The new century of the metropolis: Urban enclaves and orientalism*. London: Routledge.

Davis, M. (2006). *The planet of slums*. London: Verso.

Gudynas, E. (2011). *Buen Vivir: Today's Tomorrow* in Development n. 4/54.

Lehrer, U. (2004). *The Spectacularization of the Building Process: Berlin, Potsdamer Platz* In R. Paloscia (Ed.), *The contested metropolis, Six Cities at the beginning of the 21th Century*. Basel-Boston-Berlin: INURA, Birkhauser.

Magnaghi, A. (2005). *Urban Village: A chapter for Democracy and self-sustainable local development*. London: Zed Books.

Magnaghi, A. (2014). *La biorégion urbaine: Petit traité sur le territoire bien commun*. Paris.

Marcuse, P. (2002). *Of states and cities: The partitioning of Urban space*. Oxford: Oxford University Press.

Metzger, J. (2011). Strange spaces: A rationale for bringing art and artists into the planning. *Planning Theory, 10*(3), 213–238.

Paloscia, R. (2007). 'City environment and local heritage in a Globalized World'. In S. Bertocci, & S. Parrinello (Eds.), *Survey to the project: Heritage and Historical Town Centres*. Firenze: Edifir.

Paloscia, R. (2012). *Oltre il Nord. Dalla globalizzazione al 'buen vivir' in Contesti* n. 1.

Roy, A. (2011). Slumdog cities: Rethinking subaltern urbanism. *International Journal of Urban and Regional Research, 35*(2), 223–238.

Sandercock, L. (2005). A new spin on the creative city: Artist/Planner collaborations. *Planning Theory and Practice, 6*(1), 101–103.

Sassen, S. (1992). *The global city*. Princeton: Princeton University.

UN Habitat. (2011). *Cities and climate change: Global Report on Human Settlements*. London and Washington: Earthscan.

UN Habitat. (2013). *State of the World Cities 2012–2013*. Nairobi: UN Habitat.

Chapter 20
The Changing Context for Planning Education in the UK and the Prospects for Research-Led, Practice-Engaged Teaching

Geraint Ellis, Brendan Murtagh and Lisa Copeland

Abstract The UK's Royal Town Planning Institute (RTPI) has celebrated its centenary in 2014, marking 100 years of close relationships between university-based planning schools and a professional body focused on planning practice. During this period, the context for university education and the very idea of planning have changed dramatically contributing to a continual renegotiation of the relationships between the planning profession and the educational institutions it accredits. These changes have been particularly pronounced in the last 10 years where a number of factors have forced a rapid change in the nature of planning education in the UK. This has included a boom and then slump in the number of planning students linked to the dynamics of national economic situation, a reorganization of many planning school curricula, and their merger with cognate disciplines such as geography and an increased focus on research output, rather than professional engagement as the key indicator of institutional success. This last factor adds a particularly new dimension to the profession-university relationship, which could potentially lead to either straining of tensions or a synergy through research-led teaching that could significantly benefit both. This chapter will briefly review the evolution of UK planning schools and of the main ideas informing planning education. It will then describe the current profile of UK planning schools, based on an extensive national survey conducted on behalf of the Royal Town Planning Institute. The paper will then critically review the main challenges and opportunities facing UK planning schools in the context of changes in both planning practice and higher education. It will then move on to the concept of research-led teaching, drawing on current practice in the UK and review how well this concept serves students and the idea of developing reflective planning practitioners. Finally, the paper will seek to draw broad lessons from the experience of the UK and reflect on the type of planning education that can best serve planning professions in a variety of international contexts in the future.

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Keywords University-Profession relationship · Research-led practice engaged teaching · Forms of planning schools · Planning education · United Kingdom

20.1 Introduction

Planning education in the UK is now more than 100 years old, with the first British planning school launched in the University of Liverpool in 1909. Shortly after that, the Royal Town Planning Institute (RTPI) was formed in 1914, and it celebrated its centenary year in 2014. The last century has seen the development of a close and interdependent relationship between university-based planning schools and a professional body focused on planning practice. During this period, the context of university education and the very idea of planning have changed dramatically contributing to a continual reordering of the relationships between the planning profession and the educational institutions it accredits. Although this has been subject to evolutionary changes over time, major changes to UK universities, the funding of higher education and the governance of research activities over the last 15–20 years have changed the planning profession in very fundamental ways. This paper briefly notes some of these changes and seeks to provide a picture of current issues facing UK planning education, which may be shared by some Indian institutions. It particularly focuses on research in UK universities and explores whether this can be used to enhance the planning value of education and the broader links to the profession.

20.2 The Profession and the Academia: Planning as a 'Learned Profession'?

In claiming professional status, those involved in planning activity have sought to ensure that planning is seen not just as a routine administrative function for regulating land use, but an activity that involves attributes such as skilled expertise-based judgments whose training requires an extended and specific period of study. Indeed, this is central to how the UK profession, in the form of the RTPI has seen itself, not just as a profession (which has received critical comment, see Reade 1987; Evans 1993; Evans and Rydin 1997) but as a *learned* profession. Grant (1999) uses the term 'learned' specifically to draw comparisons with the established status of law, medicine and divinity and to emphasize learning and the advancement of an independent body of knowledge. In focusing on such aspects of the profession, Grant draws attention to the intellectual basis of planning, which clearly depends on close links to the planning academy and points to the fact that many practitioners (and, implicitly, the RTPI itself) misunderstand the role of planning schools, highlighting that:

> It is the duty of universities to educate their students, not to produce fully trained planners, and not to provide free training for the professions. It is their primary duty to enhance the intellectual and reflective capacity of their students, to develop their analytical and critical skills and to develop their capacity for further development (RTPI 2003, p. 7).

Despite this, Judge and Haughton (1998) suggested that the broader value of the planning academy has not been duly credited, noting that a survey of RTPI members indicated that academics were ranked bottom in terms of their influence as a main source of thinking about planning, compared to central and local government, professional organizations, the EU and the TCPA. This picture was also confirmed more recently by a survey by Ellis et al. (2010). Indeed, the incongruence between education and practice, academia and the profession are a recurring theme in the academic literature and in the wider debates over planning education (e.g. Poxon 2001; Gurran et al. 2008; Ozawa and Seltzer 1999; Durning 2010; Dalton 2001, 2007). Campbell (2005) characterizes the divorce between practice and the academic community as being that the former values research in terms of its contribution to system maintenance, while the latter in terms of system transformation. As such, practitioners often view planning research as having irrelevant to the daily work of planners, while practice is criticized by academics for its lack of theoretical critique. Campbell (2005) thus highlights that practitioners fail to appreciate the changing and complex world in which planning academics now work, and Goodstadt (2005) suggests there may also be a lack of appreciation of practice by academics. Grant (1999) further comments that:

> The Institute's relations with the accredited schools are also something of a mixed experience. The accreditation process is sometimes (not always) seen by those at its receiving end as being negative in character, a dampener upon experimentation and innovation and an intrusion by practitioners into their academic autonomy, rather than as a genuine opportunity for intellectual development (Grant 1999, p. 10).

However, it is not implied that there are no areas of convergence and consensus in the perception of academics and practitioners (Gurran et al. 2008), nor are these particular to the field of planning, with Griffiths (2004) suggesting that there are similar dissonance in many areas or disciplines and in academia in general. Indeed, the RTPI has long recognized the competing pressures on academia and has long sought to encourage the wider intellectual development of the discipline through, for example, its association with the Annual Planning Research Conference, its recognition of the need for an active research culture in its definition of an 'effective planning school' (RTPI 2003), the establishment of a Research and Knowledge Committee established in 2003, formed the Planning Education and Research Network (PERN) for the promotion of the *Journal of Planning Theory and Practice* and frequent debates on the role of research in planning practice (e.g. Kitchen 1997). During its recent centenary it has also prompted a range of deeper reflections on the nature and future of planning practice through its Horizon series (see RTPI websites mentioned at the end of this chapter).

Despite this, the overall impression is that there are significant areas of manifest differences in the academic–practice relationship (Poxon 2001) with professional

planners under-valuing and even overlooking the repository of expert opinion purveyed in planning schools, which one could argue is central to advancing the independent knowledge of the planning field. Further tensions are introduced into academic practice relationship when one considers the trajectory of development of planning schools and universities in the UK, which is explained in the next section.

20.3 The Evolution of UK Planning Schools

The detailed history of UK planning education and its close links with the evolution of planning have been presented elsewhere and will not be repeated here (e.g. Cockburn 1970; Thomas and Thomas 1981; Healey 1983; Cherry 1974; Poxon 2001; Frank 2006; Davoudi and Pendlebury 2010). In 1983 Healey characterized three phases of planning education:

- Pre-war i.e. before 1939: This began with the first planning courses in 1909 to the establishment and bureaucratization of the profession (Healey 1985) with the establishment of the comprehensive planning system. It is noted that the Town Planning Institute, formed in 1914, immediately concerned itself with educational matters by formulating a syllabus for professional examinations and, particularly from the 1930s onwards, encouraging the creation of more planning courses. Healey (1985, p. 4) notes that '… planning courses were the children of the town planning movement, offering a mixed bag of architectural, engineering and surveying techniques, coupled with ideals about the future of social organization'. Cherry (1974, p. 222) describes this era as lacking innovation and a 'topping up' for those already qualified in a cognate discipline.
- 1947–to the mid-1960s: Healey (1983) notes this phase as being 'dominated by professional considerations', beginning with the new comprehensive UK planning system created in 1947 and a major review of planning education in the form of the Schuster report (1950). Planning education grew rapidly in the late 1960s, reflecting both the expansion of higher education and a renewed emphasis on planning tool. During this period, we see the increasing presence on planning as a distinct discipline dealing with problem-solving, quantitative techniques and social science and a revised syllabus that stressed the academic status of planning courses. Until the 1960s planning schools were staffed almost exclusively by part-time staff and ex-practitioners (Thomas and Thomas 1981), which changed with the expansion of planning schools in the 1970s which saw for the first time, the appointment of staff with purely academic careers, drawn mostly from related disciplines of architecture, engineering and surveying.
- Mid-1960s–1980s: Healey (1983) notes that the professional considerations that dominated planning education in the 1970s gave way to academic concerns, as funding agencies increasingly stressed academic criteria for course validation and funding. Indeed, Healey (1983) points to the emerging academic identity of planning schools, expressed through the activity of the Education Planning

Association founded in 1971, which saw themselves in partnership with the RTPI with a strong overlap in personalities. This phase marks a reduction in the influence of the RTPI over planning schools, as they strived to uphold academic values and a weakening of links with the obvious exigencies of practice. Quoting Hague (1976) and Thomas (1979), Healey (1983) notes that it was during this period that control over the form and content of planning shifted away from the profession to the state. This was accompanied by a shift away from purely professional training to the teaching–research nexus, in essence marking the emergence of the distinct planning academy we have today. It is possible to extend Healey's analysis to identify further three phases since she completed her review:

- 1980s to late–1990s: This phase witnessed a period of retrenchment and pessimism within planning education, with falling student numbers and reduced funding for higher education. This period also saw the transformation of polytechnics into post-1992 universities, although the teaching–research disjoint between these and the older universities (noted by Healey above), has intensified with the introduction of the RAE in 1986, with consequences discussed below. The Research Assessment Exercise was introduced in 1986 as a mechanism for evaluating research activity in the UK and as the basis for distributing research funding on a 5 year cycle. The RAE evolved into the Research Excellence Framework. The last audit period ended at the end of 2013 and the results were published in December 2014 (see Punter and Campbell 2009). Griffiths (2004) notes that this period also witnessed the closure of a number of planning schools.
- Late-1990s–2010: This phase witnessed a revival of the confidence of planning education and practice, epitomized by the RTPI's New Vision (RTPI 2001) and RTPI (2003). Student numbers increased substantially and in a context of prolonged economic growth demand for planning graduates outstripped supply and the skills required for practice shifted with the move towards the model of spatial planning. This period has also seen a growing internationalization of UK planning academia. There was an increase in the resources available to higher education, an improved funding regime for research and an increase in student numbers. Although the planning academy became more focused on research and knowledge production, Griffiths (2004) notes that, in the post-1992 universities at least, many staff still come into teaching on the basis of experience in practice, rather than as career academics.
- 2010–Present day: The last 4 years has arguably seen a further phase of retrenchment of planning education in the UK. Following collapse of the economy in 2008, job opportunities slumped and with it, student recruitment to planning courses also got reduced. This was accompanied by the introduction of a new fees regime for university courses in the UK. The UK Government since 2010 has largely been unsympathetic to the aims of the planning system and has dramatically cut public sector spending thus further restricting job opportunities for planning graduates. These forces have inevitably led to the closure of several

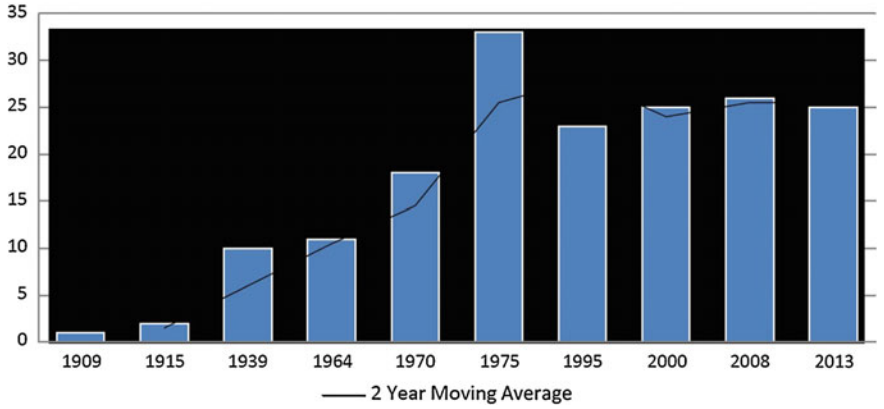

Fig. 20.1 Number of UK Planning Schools, 1909–2013

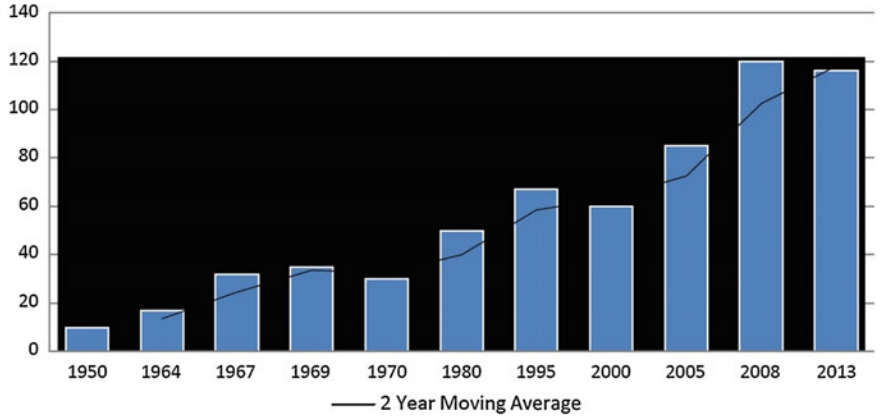

Fig. 20.2 RTPI accredited programs (UG&PG) 1950–2013

planning schools and their merger with other disciplines, particularly geography, thus reducing the scope of planning as a distinct university discipline or department.

Set against this context, Figs. 20.1, 20.2, 20.3 and 20.4, complied from a variety of sources, indicate the evolution of planning education in terms of estimated student numbers, planning schools and numbers of courses, indicating a historic growth in the number of students, planning schools and programs that reached a zenith in around 2008, following which there has been a downturn in all these indicators.

From the above, it becomes clear that the fortunes and confidence of the planning academy are closely related to the relative buoyancy of student numbers and have been strongly influenced by both the dynamics of higher education and those forces

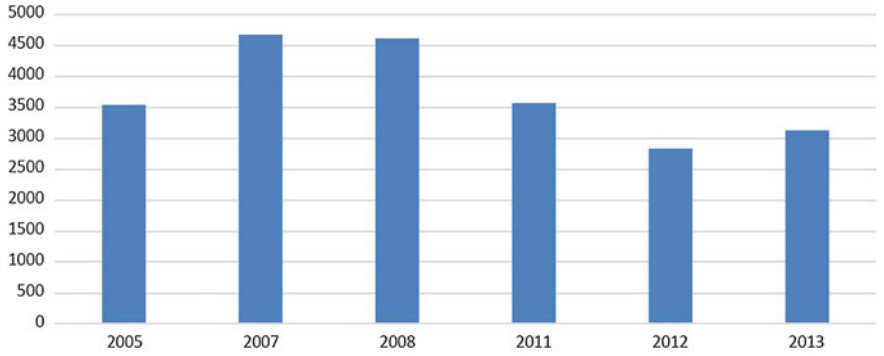

Fig. 20.3 Enrolment on RTPI accredited courses in the UK 2005–2013

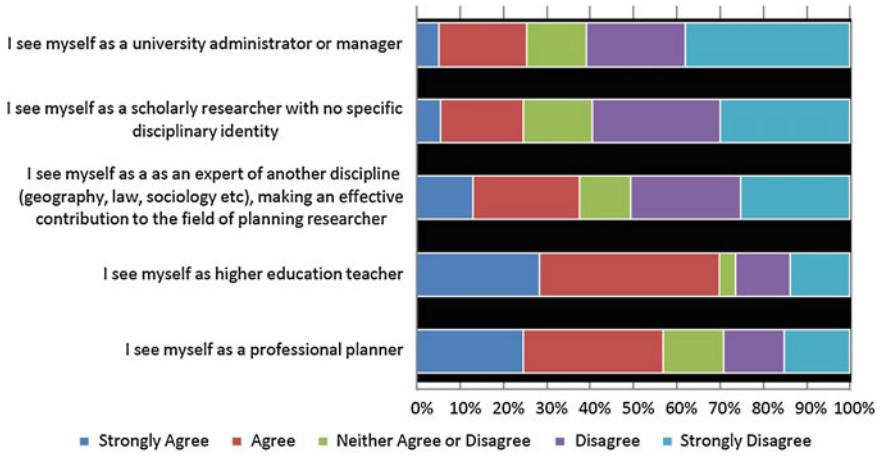

Fig. 20.4 How far do you agree with the following statements as a description of how you see yourself in relation to your work?

driving wider policies for higher education, the activities of the planning profession and broader context of planning practice. Indeed, UK universities have been subject to substantial changes stimulated by a dramatic expansion (up 35 %) since the mid-1990s leading to a boom of academic recruitment in the early 2000s. The introduction of a fees regime has also further marketised universities and introduced a new degree of competition between and within universities, at a time when planning courses have not been well placed to highlight employment opportunities. Indeed, in such a context various league tables produced by leading newspapers (The Times, Guardian) have become influential and draw extensively on insights to student experiences gathered as part of the National Student Survey (http://www.thestudentsurvey.com). There has also been increasing internationalization of the UK student body as UK universities have gone to great lengths to recruit students

from all parts of the world. Furthermore, following the introduction of the RAE/REF (see above), universities also expect planning schools to be centers of research and this is competitively reviewed every five or so years, with consequences for poor performing schools. Sixty three percent of planning students are studying in schools that have the highest research rating (http://www.thestudentsurvey.com). Universities place a great emphasis on the status of research units, so this is often seen as the priority for career advancement of academic staff leading to further tensions with teaching activity. As a result, there has been rapidly declining opportunities for practitioners to contribute to planning schools by transferring to an academic post. It has been suggested that as a result, in the next 10 years many planning schools may struggle to have any professionally accredited staff (Ellis et al. 2010).

From this brief description of the evolution and current context for planning education, it should be clear that UK universities and the planning schools they host face a wide variety of changing external pressures with the professional orientation of their programs having a relatively small influence on their future direction. Thus, while the RTPI and its powers of accreditation were once perhaps the key influence on university-based planning schools and while this continues to have a strong influence, since the 1980s the university sector has been subjected to a far greater range of influences that have tended to dilute links between the academy and the profession, leading to further sources of tension in this relationship.

These shifts have given rise to a number of tensions in many planning schools over content, method and even basic purpose of planning education: with some seeing it as primarily a vocational pursuit, some others as a more general educational experience and yet others as a higher academic discipline linked to original knowledge production. There has also been debate over whether the changes in education have led to a less engaged student body and the ability of staff to be both excellent teachers (measured in the NSS) and outstanding researchers. Thus Thomas has noted that "… there is a malaise in university planning education in the UK, other manifestations of which include a growing inability to recognize and support what might constitute intellectual achievement … and a de-sensitization to important aspects of student development that is directly linked to too much attention being devoted to teaching techniques and measurable 'learning outcomes'" (Thomas 2005, p. 238).

20.3.1 Current Planning Education in the UK

This evolution has resulted in a UK planning education sector currently in 25 professionally accredited university planning schools running at least 116 programs. The number of programs increased significantly since 2000, but now facing major downward pressure because of university reorganization and falling student demand. While once planning schools were predominantly standalone academic units with an increasing number being subsumed within broader disciplinary groupings, such as with geography, multi-disciplinary built environment departments or paired with architecture, which is symptomatic of UK higher education as

a whole. Each planning school has a differing research and teaching ethos, mix of full-time or part-time staff, career academics and practice-based staff. Recent trends in student numbers note an increasing internationalization of the student body, with nearly 26 % from non-European countries, 53 % were male and 48 % were studying on postgraduate courses.

Drawing on a major survey completed for the RTPI in 2009, which consisted of a comprehensive census of planning schools, interviews (n. 12), focus groups (n. 4) and surveys of current academics (n. 211) and practitioners (n. 1525), Ellis et al. (2010) captured a picture of contemporary planning schools, producing comprehensive data on the planning academic staff for the first time. Although these findings can only be summarized here, Ellis et al. found that the planning academy was a very diverse body, broadly representative (in terms of gender and ethnicity) of the population as a whole and reflecting the makeup of the student body. This also showed how the planning academy have changed substantially in recent years in terms of entry qualifications and experience, becoming more international and with more women being employed, although issues in terms of equality at higher grades remain. The survey found that only 54 % of academics were members of the RTPI, 58 % have a professional planning qualification and 71 % have some form of practice experience. However, professional membership is heavily biased towards the older cohort of staff, who are due to retire in the next 5–10 years. The survey highlighted that 67 % of academics are engaged in research, teaching and administration, with an expectation that they should perform at a high level in these areas, with the result that extra-mural activities, covering many valuable aspects of the academy-professional relationship are given a low institutional priority. Although space restricts wider discussion of the survey, Fig. 20.4 highlights the ways in which planning academic see their key role—with professionalism and teaching still being dominant identities.

The work of Ellis et al. also highlights the variety of staff and configurations within UK planning schools with each balancing different pressures according to size, staff and student profile and institutional setting. This showed that the average number of staff in a UK planning school is 20.4, with 50 % of schools having less than 16 staff. They do, however, vary substantially in their size, outlook and institutional context. 13 are in pre-1992 universities and 14 in post-1992 universities and only 25 % are in standalone departments. Using this survey Ellis et al. (2010) suggest that these can be understood in terms of four different clusters as shown in Fig. 20.5, shown against two key axes. One axis indicates the tension between research-orientated compared to a professional, or practice orientation to teaching while the other highlights the degree of engagement with the planning profession, for example through levels of staff activity, qualifications and links to local practitioners. This analysis was undertaken by taking a range of independent variables from the survey and testing them, using SPSS software to achieve the greatest variance in the data. 27 variables were chosen which cumulatively explain 63.2 % variance in the data. Percent of variance was Factor 1 (22 %), Factor 2 (18 %), Factor 3 (13 %), Factor 4 (9 %) (see Table 20.1).

This typology is useful to the argument made in this paper for a number of reasons. First, it provides a useful illustration of the variety of UK planning schools

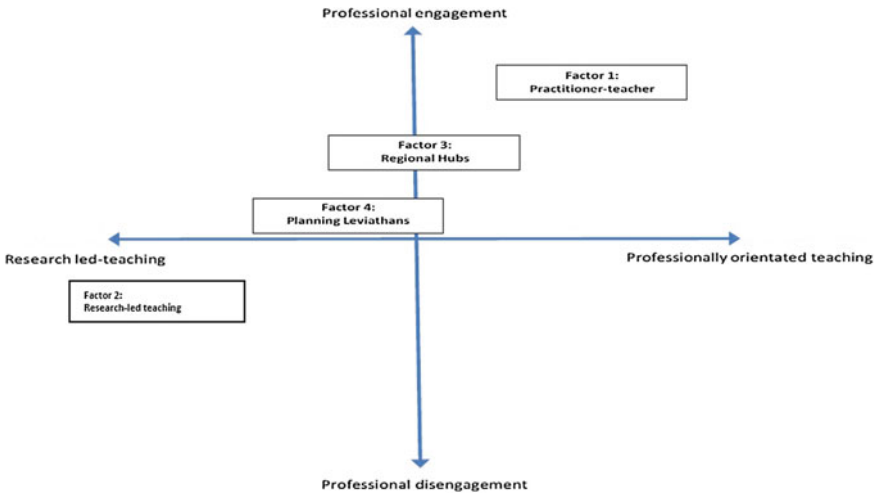

Fig. 20.5 A typology of current UK planning schools

Table 20.1 Forms of planning schools in the UK

Factor 1: "Practitioner-teacher" schools: These schools tend to be located in post-1992 universities with large student cohorts and with a large majority (70 %) of staff having a planning qualification and practitioner experience. They employ a higher proportion of teachers only as part-time staff, with less of an international background and most staff are over 50 years of age. These schools appear to be focused on professional education rather than research performance
Factor 2: "Research-led teaching" schools: These schools are mostly located in Russell Group universities and in the top 50 % of best research performers and with an emphasis on post-graduate education, particularly Ph.Ds. The schools have a relatively young, international staff profile, encouraging appointment of those with Ph.Ds and strong research records
Factor 3: "Regional Hub" schools: These tend to be located in regionally based universities, with many having a long tradition of acting as important hubs for planning education and research. Most have large undergraduate courses and average—high research ranking, with Ph.D. and research record being the top recruitment criteria, although Heads of Schools are concerned about their ability to recruit adequately qualified staff
Factor 4: "Planning Leviathan" schools: These are the largest planning schools in the UK in terms of their staff, student numbers and budget, located in both pre- and post-1992 institutions. These are characterized by a high research performance coupled with large scale educational provision at undergraduate and post-graduate levels. The staff in these schools has the lowest proportion with professional experience, planning qualifications or membership of the RTPI and a younger staff profile

Source Ellis et al. (2010)

highlighting some of the key variables that explain the differences in function and outlook. Second, from this simple discussion it can be understood that there may well be significant differences in the student experience and the types of skills developed by students at these different types of institutions, prompting reflection on the variety of learning experiences. Finally, the type of school may influence the

type of relationship it has with the professional body and to consider which of these types is likely to produce the type of planners that best fits the normative model of a professional panel now needed in practice. Given the various pressures now facing many planning schools, it also focusses the mind on considering which of these types of schools can best weather current upheavals in universities and planning education, to ensure that a steady supply of planning graduates can be maintained to meet continuing demand. One can speculate that given the forces of completion for student recruitment, professional engagement would become an aspiration to enhance graduate employability while internal forces within universities force continual improvement in research performance, which brings significant financial rewards, attracts higher quality staff and accretes the status of the academic unit. Furthermore, high institutional status appears to be a key driver of international student recruitment.

Thus we would therefore suggest that, while respecting specific institutional traditions and characteristics, the normative future model for UK planning schools and perhaps internationally is one which displays both high quality research and is professionally engaged i.e. tending to the top left corner of Fig. 20.5, an area currently not occupied by many UK planning schools. Such an aspiration offers a range of advantages to both planning schools and is arguably of more valuable to the profession as a learned body of practitioners. One can speculate therefore that each of the types of UK planning schools need to adopt a range of strategies to achieve such advantages, as schematically shown in Fig. 20.6. Space does not permit a detailed exploration of these strategies, but the final section examines this role of further aligning teaching with research to help achieve such an orientation.

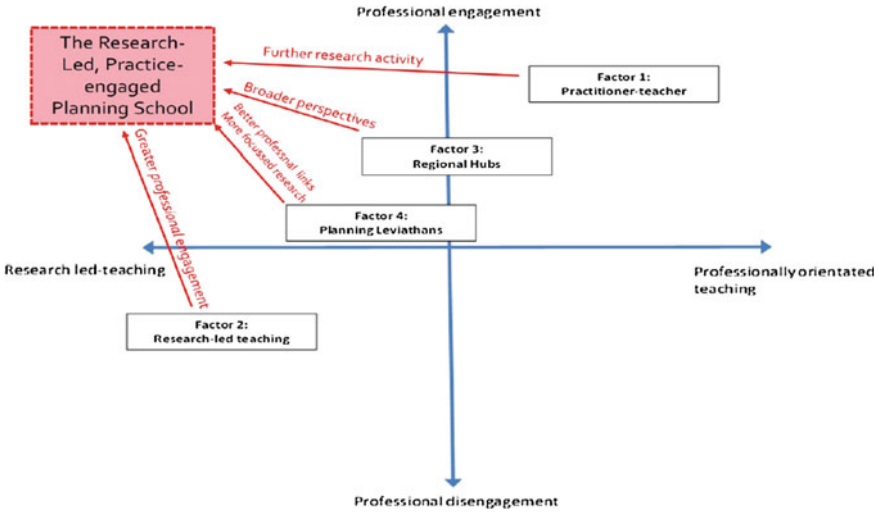

Fig. 20.6 Normative strategies for UK planning schools

20.3.2 Research-Led, Practice-Engaged Teaching

It is therefore useful to consider the implications this changing context for planning education and to consider what this may mean for future relationships between planning schools and the professional body, how the student experience and educational quality can be enhanced and how the intense research activity being undertaken in UK planning schools can be exploited for the practice of planning.

We should recognize that universities make a critical contribution to the place-making strategies of host cities and within this context complex and multi-layered relationships (Addie et al. 2014) and as an applied discipline can make a significant impact, (acknowledging the ambiguous nature of the concept of impact—see Haughton et al. 2015; Marx and Feathers 2014). Indeed, Griffiths (2004) has noted that applied fields such as planning have a distinct approach to knowledge generation in that "they are orientated not towards knowledge and understanding for their own sake, but towards the use of knowledge and understanding in addressing conflicts, tackling problems and meeting needs of clients or other groups' often complex and negotiating these can bring benefits themselves" (Griffiths 2004, p. 715). This therefore offers substantial potential for leveraging benefits of knowledge production for both students and the wider profession through research led-teaching, practice-engaged teaching that tracks the normative strategies mapped on Fig. 20.6 and can play a key role in establishing synergies between universities and professions (Griffiths 2004).

There has been extensive debates on the nature and benefits of research-led teaching, recognizing that it is interlinked with strategies of inquiry-based learning (Spronken-Smith and Walker 2010) or problem-based learning (Schmidt et al. 2011). Indeed, while the research–teaching nexus has a wide range of dimensions and interpretations (Healey 2005) and indeed myths attached to it (Brew 2010), one can conceive it operating around two key axis, as shown in Fig. 20.7 that reflect the fact that this can consist of research-led, research-orientated, research-based or research-informed approaches (Griffiths 2004, p. 722).

An emphasis on research focused teaching can be frustrated by wider university structures, pedagogical practices and assumptions about what students are capable of (Brew 2010). Further, there are specific challenges in accredited subjects like planning as professional bodies tend to encourage 'curriculum creep' and in so doing further distance research and teaching (Healey 2005).

However, there is substantial evidence that highlights the benefits of integrating research and teaching. For example, it encourages students to take more control and independence over their studies built into much planning education. Seymour et al. (2004) report that undergraduates involved in research projects have increased confidence, better problem solving skills an critical thinking, greater confidence for clarifying career goals and transferable skills. It has been suggested that research-led teaching can create a more engaging curriculum that allows students to better understand research and to know how to base decisions on evidence, collected in a robust way. In this way students do not become just the 'masters of

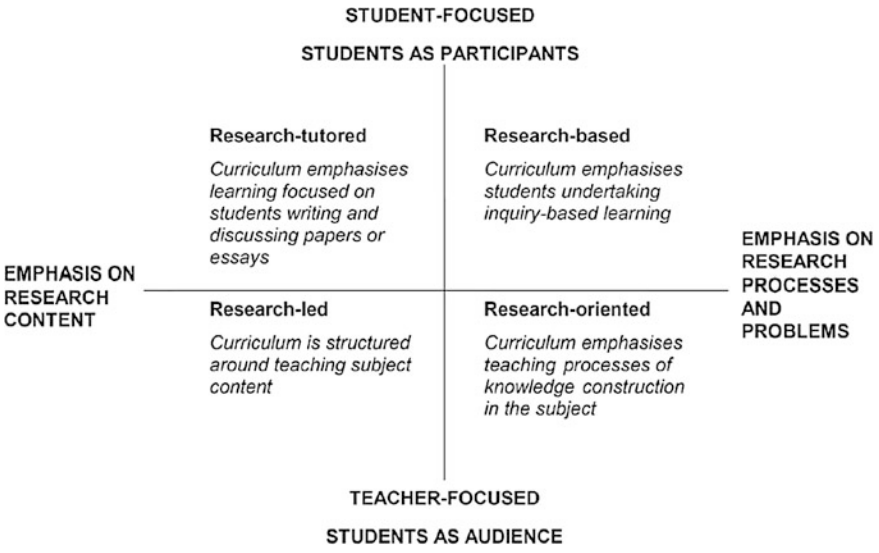

Fig. 20.7 Curriculum design and the research teaching nexus. *Source* Healey (2005)

bodies of thought' but they can cope with the challenge of open critical inquiry. As future users of research embedding this more effectively in the curriculum also allows them to think more critically about some of the challenges they would face when in planning practice and thus enhancing the employability of students.

This approach can therefore help overcome the growing divide between research and teaching that is emerging in UK planning schools, address student engagement and could help encourage and reward scholarship in teaching. However, there is also a need to consider the type of research that can have the greatest impact on planning thought and practice, which is not just a role for the academy but also for the profession well to stimulate this through recognizing the value of university research, rewarding excellence, disseminating research findings in ways that make most sense, develop ways to stimulate policy-relevant research and getting practicing planners to take an interest and use such research (see Ellis et al. 2010 for further discussion). One would expect that better engagement with robust evidence and would also stimulate further innovation in planning practice.

We know however, that planning education—in almost every country—has had a strong tradition of action research and engaging students on consultancy-like projects with planning authorities and communities. Here we are calling to reflect on this tradition and go further in the generation of new knowledge, rather than the application of existing knowledge. This could be done in the context of a whole range of activities including gathering pilot data for research grant applications, exploring different or innovative research techniques, developing online resources, testing the robustness of secondary data or involvement in problem-focused action research projects. Indeed, we must never overlook the value of this type of activity,

both to developing more robust research findings, but also in the value it can bring planning stakeholders who often do not have access to resources to be able to try higher risk research activities or in some cases, more incisive data monitoring. As noted in Fig. 20.6, progressing this agenda will have different implications for each type of planning school, with some having to enhance their research activity, others to better engage practitioners in their research, and some to engage in research questions beyond their immediate locale. The key message here is the need to further embed the ideal of research-led practitioner engaged teaching as a normative goal for planning education.

20.4 Conclusions

This chapter has reviewed the evolution and current challenges to planning education in the UK. It has briefly described how planning's claims to professional status partly depends on the higher learned activities, which largely emanate from universities. While there has traditionally been a close relationship between universities and the planning profession, in recent years there has been increasing tensions between planning schools subject to a variety of external pressures and the planning profession. There are broad concerns about the future direction of planning education in the UK related to the viability of planning schools as distinct academic units and the engagement of students taking planning courses. Although not offered as a panacea and only briefly described here, it is suggested that a focus on research-led, practitioner engaged teaching offers a way of addressing some of the priorities of UK planning education.

References

Addie, J. P. D., Keil, R., & Olds, K. (2014). Beyond town and gown: Universities, territoriality and the mobilization of New Urban Structures in Canada. *Territory, Politics, Governance, Territory, 3*(1), 27–50.

Brew, A. (2010). Imperatives and challenges in integrating teaching and research. *Higher Education Research and Development, 29*(2), 139–150.

Campbell, H. (2005). Reflexivity and the planning academic: Challenges and responsibilities. *Planning Theory and Practice, 6*(2), 235–237.

Cherry, G. (1974). *The evolution of British Town Planning*. Leonard Hill: Leighton Buzzard.

Cockburn, C. (1970). *The provision of planning education*. Bristol: Centre for Environmental Studies.

Dalton, L. C. (2001). Weaving the fabric of planning as education. *Journal of Planning Education and Research, 20*(4), 423–436.

Dalton, L. C. (2007). Preparing planners for the breadth of practice. *Journal of the American Planning Association, 73*(1), 35–48.

Davoudi, S., & Pendlebury, J. (2010). Centenary paper: The evolution of planning as an academic discipline. *Town Planning Review, 81*(6), 613–646.

Durning, B. (2010). Planning academics and planning practitioners: Two tribes or a community of practice? *Planning Practice and Research, 19*(4), 435–446.
Ellis, G., Murtagh, B., & Copeland, L. (2010). *The Future of the Planning Academy*, London: RTPI. http://www.rtpi.org.uk/briefing-room/news-releases/2011/january/rtpi-report-highlights-importance-of-links-between-planning,-education,-research-and-practice/
Evans, B. (1993). Why we no longer need a planning profession. *Planning Practice and Research, 8*(1), 9–15.
Evans, B., & Rydin, Y. (1997). Planning, professionalism and sustainability. In B. Evans & A. Blowers (Eds.), *Town planning into the 21st Century*. London: Routledge.
Frank, A. I. (2006). Three decades of thought on planning education. *Journal of Planning Literature, 21*(1), 15–67.
Goodstadt, V. (2005). Rebuilding the planning community: questioning the orthodoxy and speaking the truth. *Planning Theory and Practice, 6*(2), 247–249.
Grant, M. (1999). *Planning as a learned profession*. London: A paper prepared for the Royal Town Planning Institute.
Griffiths, R. (2004). Knowledge production and the research–teaching nexus: The case of the built environment disciplines. *Studies in Higher Education, 29*(6), 709–726.
Gurran, N., Norman, B., & Gleeson, B. (2008). *Planning Education Discussion Paper*, a paper prepared for the Planning Institute of Australia, PIA.
Hague, C. (1976). *A Materialist Analysis of Planning Education*, a paper prepared for the EPA Planning Workshop, Unpublished.
Haughton, G., Deas, I., & Hincks, S. (2015). Making an impact: when agglomeration boosterism meets anti-planning rhetoric. *Environment and Planning A, 46*(2), 265–270.
Healey, P. (1983). 'British Planning Education in the 1970s and 1980s'. In H. W. E. Davies, & P. Healey (Eds.), *British planning practice and planning education in the 1970s and 1980s*, Working Paper No. 70. Oxford: Oxford Polytechnic Department of Town Planning.
Healey, P. (1985). The professionalization of planning in Britain, its form and consequences. *Town Planning Review, 56*(4), 492–507.
Healey, M. (2005). Linking research and teaching: exploring disciplinary spaces and the role of inquiry-based learning. In R. Barnett (Ed.), *Reshaping the University: New relationships between research, scholarship and teaching* (pp. 67–78). London: McGraw Hill and Open University Press.
Judge, E., & Haughton, G. (1998). The UK research assessment exercise and planning: The promotion of irrelevance to the Real World? *Planning Practice and Research, 13*(1), 9–12.
Kitchen, T. (1997). *People, Politics, Policies and Plans: The City Planning Process in Contemporary Britain*. London: Sage.
Marx, G., & Feathers, H. (2014). Making an impact: Misreading, misunderstanding, and misrepresenting research does nothing to improve the quality of public debate and policy making. *Environment and Planning A, 46*, 2276–2282.
Ozawa, C. P., & Seltzer, E. (1999). Taking Our Bearings: Mapping a Relationship Among Planning Practice, Theory, and Education. *Journal of Planning Education and Research*, *18*(3), 257–266.
Poxon, J. (2001). Shaping the planning profession of the future; the role of planning education. *Environment and Planning B: Planning and Design, 28*, 563–580.
Punter, J., & Campbell, H. (2009). Reflections on the 2008 United Kingdom research assessment exercise for town and country planning and closely associated disciplines. *Town Planning Review, 80*(1), 31–54.
Reade, E. (1987). *British Town and country planning*. Milton Keynes: Open University Press.
Royal Town Planning Institute. (2001). *A new vision for planning*. London: RTPI.
Royal Town Planning Institute. (2003). *Report of the education commission*. London: RTPI.
Schmidt, H. G., Rotgans, J. I., & Yew, E. H. (2011). The process of problem-based learning: what works and why. *Medical Education, 45*(8), 792–806.
Schuster, G. (1950). *Report of the committee on qualifications of planners, CMD 8059*. London: HMSO.

Seymour, E., Hunter, A. B., Laursen, S. L., & DeAntoni, T. (2004). Establishing the benefits of research experiences for undergraduates in the sciences: First findings from a three-year study. *Science Education, 88*(4), 493–534.

Spronken-Smith, R., & Walker, R. (2010). Can inquiry-based learning strengthen the links between teaching and disciplinary research? *Studies in Higher Education, 35*(6), 723–740.

Thomas, A. H. (1979). *An Analysis of Changes in Planning Education*, Unpublished M. Phil Thesis. London: University College London.

Thomas, H. (2005). Pressures, Purpose and collegiality in UK planning education. *Planning Theory and Practice, 6*(2), 238–247.

Thomas, A. H., & Thomas, W. K. (1981). *Planning Education in the 1970s*, Working Paper No. 65. Oxford: Department of Town Planning, Oxford Polytechnic.

Chapter 21
Indicators: From Counting to Communicating

Javier Martínez and Emile Dopheide

Abstract The use of indicators for analyzing quality-of-life conditions and differential access to resources and opportunities have gained the attention both in the academic as well as in the planning practice and policy arenas. However, teaching indicator methods and usage is a challenge since it requires the practice of going through all the steps of indicators' development in a short period of time. These steps range from counting, construction and operationalization of the indicators to more policy and learning-related steps that require a critical and reflective process. This gradient from the traditional and mechanistic to the critical is also reflected in the evolution of indicators' movement. To analyze and illustrate this development we document education, fieldwork and research on indicators carried out at our faculty in the past 20 years. Our experience indicates that indicators have a great potential to bring the worlds of research and education, and the world of planning and policy making closer together. We believe that in education process, it is of utmost importance to emphasize the shift in the role of indicators from the traditional counting and description towards a more critical and communicative role. We present a framework to show the existing dichotomies and how to incorporate this shift in indicators' development.

Keywords Indicators · Learning and teaching indicators · Indicators processes · Communication

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21.1 Introduction

The use of indicators for analyzing quality-of-life conditions and differential access to resources and opportunities have gained the attention both in the academic as well as in the planning practice and policy arenas (Wong 2000, 2006; Martínez 2009; Baud et al. 2009; Tesfazghi et al., 2010; Dopheide and Martinez 2007; Bovaird and Loffler 2003; Ghose and Huxhold 2002). The geographic variation of cases in the literature shows that the use of indicators to generate policy-relevant knowledge covers both the north and global south. This increasing interest is probably influenced by global monitoring campaigns such as the Human Development Index, the Millennium Development Goals, UN-Habitat Urban Indicators and Global Urban Observatories. This also reflects the different scales at which indicators are applied from the local to the global.

This interest of indicators is translated in the inclusion of indicator methods in the curricula of geography, urban planning, and development studies. However, teaching indicator methods and usage is a challenge since it requires practice in a short period of time of the different steps of indicators development. These steps range from counting, construction and operationalization of the indicators to more policy and learning-related steps that require a more critical and reflective process. This gradient from the traditional and mechanistic to the critical is also reflected in the evolution of the indicators movement that we present here.

We understand indicators as qualitative or quantitative data that describe features of a certain phenomenon and communicate an assessment of the phenomenon involved. Indicators are selected specifically for their relevance to policy issues and are related to a specific time and place. With this definition, we want to emphasize the policy relevance of indicators in particular if they are used for informing planning policies.

One of the strength of indicators as a tool for planning is that they have the potential to communicate complex issues in a simple and understandable manner. They help in the formulation of explicit goals and in the development of a shared vision on relevant issues. They have the advantage of being objectively verifiable and they can also help in monitoring and assessing progress. They are also a powerful communication tool that can inform the public, generate awareness on various issues of concern and encourage action and empowerment. Also at the international level, it is recognized that the design of good indicators has to reflect these matters (UNCHS 2000). Moreover, which is particularly relevant in the context of governance and participation, if indicators are properly developed, they promote transparency and accountability. However, indicators are not always capable of fulfilling the above-mentioned potentials and this is reflected in the fact that they have been used for decades with intermittent degrees of acceptance, embedment and success.

The aim of this chapter is twofold: one, to critically analyze the claimed potentials and limitations of indicators; and two, to provide a framework that can better inform teaching and understanding of indicators practices as well as facilitate

a shift from mere counting function of indicators towards a tool for critical understanding of planning issues. In the second section of this chapter, we describe the origins of indicators, outline the path towards its present use and distil dimensions of indicators development. The third section presents several indicators in the form of research and fieldwork projects carried out in our faculty. To reach this aim we revisit education, fieldwork and research activities on indicators carried out at our faculty during the last 20 years. In the fourth section we point to some of the dilemmas, problems and limitations that emerge with the use of indicators. Finally, we conclude by giving some guidelines and proposing a framework for teaching and developing indicators.

21.2 Origins and Dimensions of Indicators Development

The use of indicators and geo-information at sub-city level could be traced back to Charles Booth's Poverty Maps in London at the end of the nineteenth century (see booth.lse.ac.uk). Wong (2006) identifies the origin of quantitative indicators used for policy making in the 1940s with the appearance of the monthly economic indicators in the US. The term social indicators and its dissemination started a decade later (Wong 2006). An example of the interest in the geographical aspects of social indicators can be found in the work of Smith (1973) who carried out a study of the city of Tampa using 47 'intra-city indicators', and a general index to measure the general social well-being. This also relates to a concern about spatial disparities and spatial injustice in geographical studies that were accompanied by an interest in influencing public policy. Social indicators and the interest on capturing multiple dimensions was also a reaction to indicators that only captured economic dimensions, for example GDP capita. Non-monetary dimensions of well-being were later taken up by the Human Development Index (Natoli and Zuhair 2011; UNDP 1990).

In the 1980s, there was a loss of interest in social indicators that could be explained by a criticism to the reductionist character of indicators and moving away from quantitative analysis. Some of the critique towards the early social indicators movement of the 1960s was that they emphasized the measurement task, while often excluding political and institutional aspects (Innes 1990). Data reliability and problems of interpretation (among others) were also signalled (Knox 1978 in Wong 2006). A lack of interest on social indicators could be also explained by a loss of concern and interest in reducing disparities. On one side post-modernism emphasized or 'celebrated' diversity and difference (Smith 1994) and 'governments increasingly opted for the 'magic of the market' rather than social intelligence and became less interested in social engineering and reform' (Miles 1985 in Wong 2006).

In the 1990s, started a renewed interest in social indicators that could be explained by growing social inequality in the western societies and a focus on ideas of social exclusion that defines poverty also in terms of social participation (Knox and Pinch 2000). At the same time there has been a growing engagement of

geographers with inequalities and moral and social issues, including the theme of the ethics of professional practice (e.g. Couclelis 1999). The increase of interest of indicators in general was related to a growing interest in quantification, more tangible objectives (thinking SMART), accountability, transparency and managerial approaches (Bovaird and Loffler 2003). It is also in the 1990s that indicators grew worldwide (Wong 2006). This is also reflected in the growing interest in indicators in the urban agenda at the UN. The United Nations Human Settlements Programme (UN-HABITAT) commenced the collection of urban indicators as one of its objectives to capture essential information on cities and to monitor the performance of cities in relation to desired policy goals (Flood 1997). In 1991, UN-Habitat initiated the Housing Indicators Programme, focusing on monitoring performance in shelter issues. This led to the establishment of the Urban Indicators Programme in 1993 with a focus on a larger range of urban issues (Flood 1997). The most recent Global Urban Indicators Database (UIP-III) produced by UN-HABITAT's Global Urban Observatory (GUO) continues to address the Habitat Agenda key issues, with a specific focus on the Millennium Development Goals (MDG), particularly its Target 11 about the improvement in the life of slum dwellers (Martínez et al. 2008). In that sense, the MDGs could be seen as the latest 'global showcase' of indicators attached to targets and goals. An increasing role is also given to the communication and diffusion of indicators produced by the UN on the web (e.g. www.devinfo.info/urbaninfo).

In many cases along the history of indicators they were selected for their relevance to policy issues. In the 1990s in particular, use of indicators was promoted with the claim to support evidence-based policies. The case of the UK is one of the examples where the government push for 'evidence-based practices' is encouraged (Wong 2006). In that way, indicators acted as mediators between policy and research. However, there is not a monolithic view on how to approach indicators within this intersect of policy and research. Davoudi (2006) explains two different views about the policy-research interface: the instrumental view and the enlightenment view. In the instrumental view the relationship between evidence and policy is assumed as 'unproblematic, linear and direct' and either research leads policy (evidence-based policy) or research is shaped by policy. In the instrumental view, indicators can be chosen and linked to a particular policy goal (policy-related research). Once indicators are implemented and they trigger new policies they are clearly following the evidence-based policy domain.

Davoudi (2006) advocates for the enlightenment view where emphasis is on evidence-informed policy. In this case, the role of research would be 'less on problem solving than on clarifying the context and informing the wider public debate'. Also Cobb and Rixford (1998) refer to this enlightenment function of indicators when they state that 'it is the power of indicators to alter the common understanding of a problem-not merely to point out the problem' (Cobb and Rixford 1998, p. 25).

Considering these two views, the present and future role of indicators will better fit into the enlightenment model. One of the misconceptions of the instrumental view is that it considers policy making as a rational process where experts are

apolitical and value-free (Davoudi 2006). In relation to problem solving and decision making, policy choices and decisions are value judgements and cannot be determined by indicators (Wong 2006). On the contrary, in a real policy process issues such as 'ideology, interests, institutional norms and practices and prior information' play a key role in influencing decisions (Weiss 2001, p. 286 in: Davoudi 2006). Indeed, research on the actual use of indicators (Higginson et al. 2003; Martínez 2005) show that some policy makers feel that indicators are not yet influencing action or decision making as much as they would expect. One of the explanations given is that 'it is not always clear how policy is made and how information should be fed into the policy making process' (Higginson et al. 2003). Insufficient communication of indicator findings is also mentioned as a problem (Higginson et al. 2003; Innes 1990).

A critical view about the increasingly normative global agenda (e.g. MDG indicators) is given by Jenkins et al. (2007) since it "assumes that 'fair play' can exist, as long as information is clear, analysis correct and dialogue possible" and ignoring, e.g. power relations and the fact that 'the way knowledge is selectively produced also conditions the form of analysis—whoever sets the rules and agenda dominates the action and dialogue'. Indicators as any evidence will not trigger a decision but they will rather better inform and shed light on the problems that ultimate policy makers will tackle. Therefore, the capacity and function of indicators as a learning and communication tool should be emphasized.

Figure 21.1 presents two dimensions identified in the evolution of the indicators movement. One represents a mechanistic versus a critical construction of indicators ranging from indicators understood predominantly as data, counting and number crunching; to indicators understood as knowledge, understanding, and communication. Cobb and Rixford (1998, p. 31) also contrast indicators that help to develop and test the validity of cause-effect relationships rather than just pointing to the problems themselves.

Another dimension represents two opposing views in the process of indicators construction: indicators as an objective exercise with value-free information; and indicators as an inclusive process characterized by collaboration, communication, feedback, sharing and empowerment. With these two dimensions, we do not intend to provide a precise and comprehensive typology but rather reflect on what we observe as existing opposing practices. The origin of indicators in the 1960s is most probably identified in the first quadrant of the mechanistic and objective dimensions with an instrumental policy-research view. On the fourth quadrant characterized by inclusive and critical dimensions, we could locate what we call the 'critical-inclusive' area of 'learning indicators'. This fourth quadrant also comes close to the integrative double-loop indicator evaluation framework as proposed by Wong (2011) that allows 'key stakeholders to express their vision in the policy formulation process as well as providing a feedback loop to frame policy problems' (Wong 2011, p. 15). Also Alexander (2011) suggests that a comprehensive evaluation practice will have analytical–technical elements as well as participative-interactive ones. A shift from

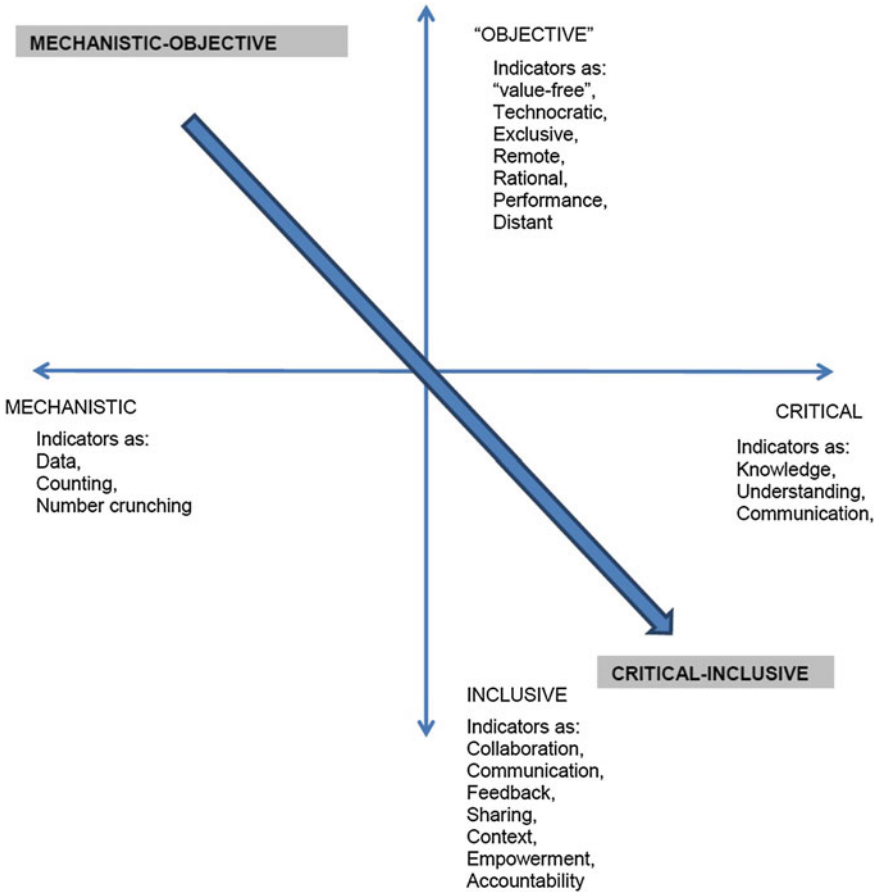

Fig. 21.1 Dimensions of indicators development

the first to the fourth quadrant is what we try to advocate both in the teaching process of indicators as well as in practices. Some characteristics of this shift emerge in the following section.

21.3 Indicators Studies at the Faculty of ITC

Here we present in chronological order a selection of education and research activities related to urban and regional indicators within the Department of Urban and Regional Planning and Geo-Information Management at Faculty ITC in Enschede, the Netherlands. Faculty ITC at the University of Twente has almost 60 years of experience in capacity building and institutional development of

professional and academic organizations and individuals specifically from less-developed countries in the field of geo-information science and earth observation and its applications (see www.itc.nl).

21.3.1 Early 1990s: Awareness of Relevance of Indicators

This period of indicators' development is characterized by a transition from mechanistic–objective approaches-typical of indicators usage since the 1960s to more critical-inclusive approaches. Policy needs including issues of performance and accountability guide this transition and the awareness of relevance of indicators. The renewed interest on indicators in the 1990s is also reflected in research and education carried out at ITC. We present a selection of student projects and M.Sc. studies that illustrate the process through which students evolve their indicators' development. While in the first instance very much data-driven and mechanistic; students realize—if done properly—the need for iterative steps and feedback from stakeholders in problem identification, indicator construction; data collection; and indicator use.

Around the 1990s a group fieldwork for students of the Survey Integration course took place in Chiang Mai, Thailand, which involved the setting up of an indicator system at district level, which could be compared with the actual allocation of public resources among the various villages. Another example is the work of Infante (1992) where socio-economic indicators were the focus of research. Emphasis was then given to supporting planning in different phases and in particular to identify, rank and prioritize problem areas in Philippine provinces. One of the recommendations was directed towards the improvement of data due to 'the absence of reliable data' (Infante 1992). In the same direction the author indicated that because the Local Government Code of 1991 'stressed the need to put into maps all data relevant to local planning', it would be recommended to apply GIS in this framework of indicators. In general it concluded that 'At the provincial level, a framework using socio-economic indicators is desirable and feasible' (Infante 1992).

21.3.2 Mid 1990s: Relevance of Link of Indicators with Policy

In this period of indicators' development, we observe the importance given to the linkage of indicators with policy and the emergence of more critical-inclusive approaches. The relevance of spatial units and analysis to inform policy was evident in the increasing use of methods supported by geographic information systems (GIS). In teaching, we have emphasized learning aspects of indicator development rather than pure data collection practices.

The use of GIS in the construction of indicators was presented in a later work of Asensio (1997) on targeting the poor in Guatemala city. One of the research objectives was to 'analyse poverty indicators in a spatial context'. One of the main advantages of GIS in the construction of indicators was presented in her work. The advantage relates to the possibility of combining different data sources such as census data and remotely sensed images such as aerial photographs. Most of the attention was given to compare the resulting target areas from the different data sources like Census, AP. Some of the conclusions were that the use of 'homogeneity criteria to delineate census enumeration sectors can help to avoid targeting errors and to show specific characteristics of socio-spatial segregation'.

A year later, another work emphasized the importance of problem identification and the role of policy makers rather than geo-information tools such as GIS or remote sensing. The policy relevance of indicator is then incorporated in the framework of indicators of a study carried out in the Philippines (see Fig. 21.2). The research had the aim of exploring spatial variations among the municipalities in the province of Zambales (Arjagaruka et al. 1998). A set of indicators was based on field visits and discussions with local officials. Measurability and accuracy were also the criteria for selecting the indicators. Accuracy in this case was related to 'the accuracy in indicating a gap between the actual and the desired situation', i.e. the problem. In the identification of the indicators, the role of policy makers was clearly established. A number of reiterations based on feedback and discussions with the various local stakeholders were necessary to arrive at a consolidated problem analysis and problem structure. Also in the eventual definition of the indicators, students had to go through a number of rounds. The whole exercise very well illustrated the learning aspect of indicator development rather than being a simple data collection exercise. In that sense, this exercise would fit in the fourth quadrant of Fig. 21.1 emphasizing the critical and inclusive dimensions. A challenge in the construction of indicators was related to the lack of data coherence since data varied between agencies.

21.3.3 2000s: Inequalities and Globalization

In this period of indicators development, we observe a consolidation in the use of GIS and visualization. This is primarily guided by policy needs seeking performance comparisons, benchmarking and trend analysis at different scales from the global (i.e. MDG) down to the sub-urban and community scales. These two scales are reflected in the following cases of inter-urban and intra-urban comparisons.

21.3.3.1 Inter-urban Comparisons

At ITC we observe a similar correlation with an extensive use of GIS and sophisticated visualization tools of indicators and an interest in global comparisons and benchmarking. The research carried out on global indicators at ITC (Martínez et al. 2008)

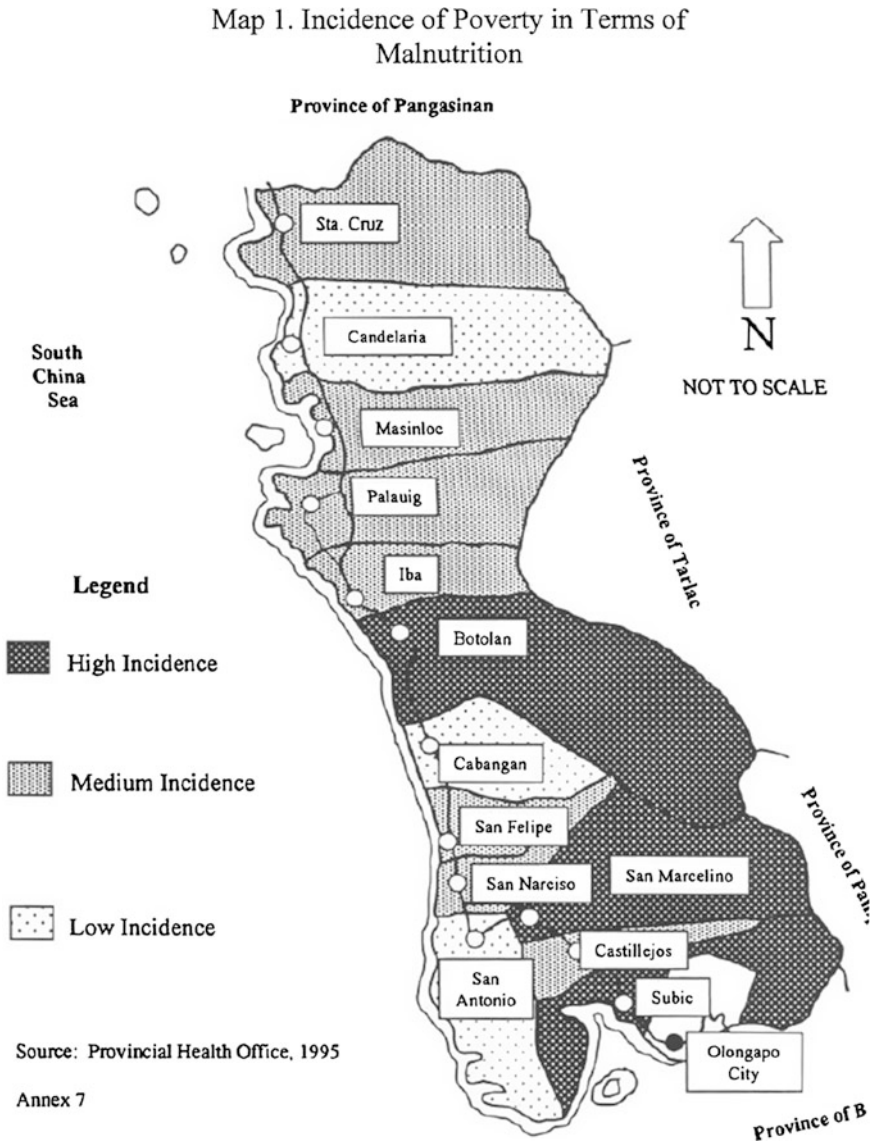

Fig. 21.2 Spatial Variation of Poverty across the Province of Zambales. *Source* Arjagaruka et al. (1998)

is a consequence of the increasing attention to the comparison of quality-of-life conditions across the world. The aim of this research was to statistically analyze trends and clustering in shelter and slum conditions in different cities in developing countries and to establish how these conditions are related to other millennium development

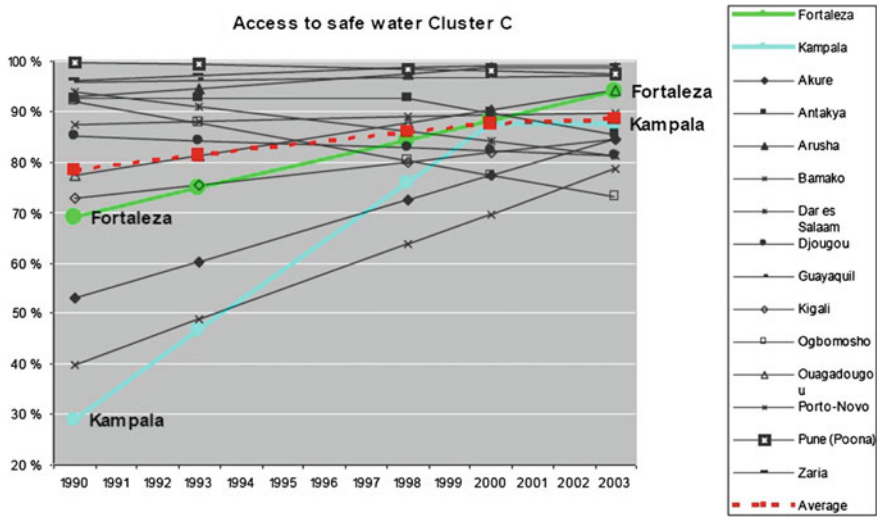

Fig. 21.3 Changes in access to safe water for cities in cluster C

goals (MDG) indicators such as under-five mortality. The research carried out analysis of data contained in the Global Urban Indicators Database (UIP-III).

Figures 21.3 and 21.4 show how with indicators it is possible to communicate with a simple graph the different paths that cities took in the improvement of water access and the reduction of under-five mortality. This is the case of cities like Fortaleza and Kampala where an increase in access to safe water (Fig. 21.3) is also reflected in a reduction of under-five mortality (Fig. 21.4). These cities belong to a cluster of cities that share similar characteristic according to a group of shelter indicators (Fig. 21.5).

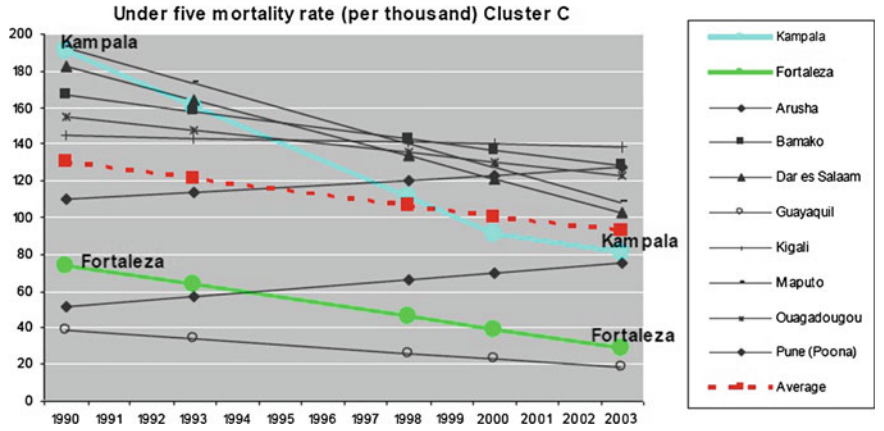

Fig. 21.4 Changes in under-five mortality for cities of cluster C

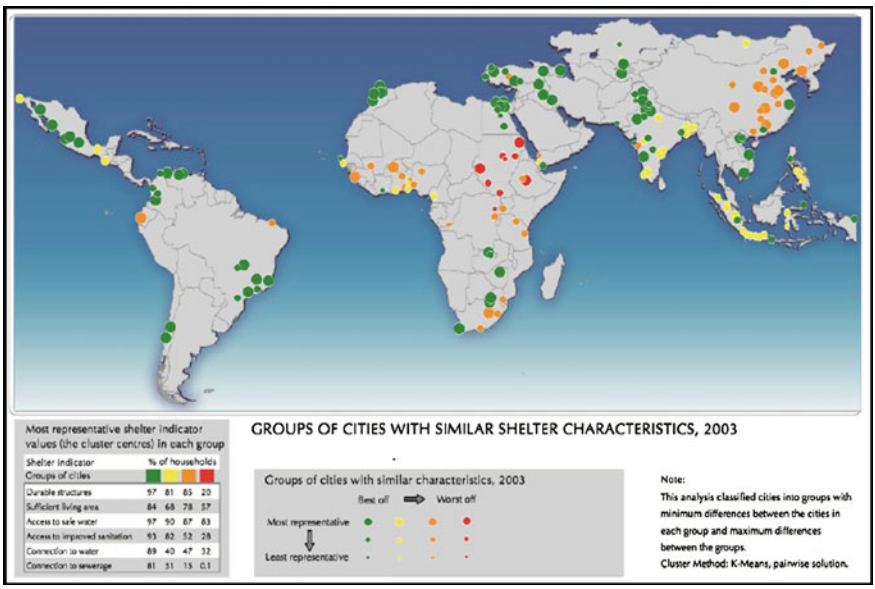

Fig. 21.5 City clusters based on 6 shelter indicators. *Note* Catographic representations: Connie Blok and Jeroen van den Worm. *Source* Martínez et al. (2008)

Within the same research project, attention was also given to communication and visualization aspects of indicators and the possibility of producing advanced visualization tools such as interactive flash maps that were presented for the World Urban Forum 2006 (Fig. 21.5). By clicking on the interactive map, it was possible to visualize groups of cities separately or to display a synthesis of shelter indicators of a city.

In this example, indicators are mostly used to communicate and advocate for specific policy actions, e.g. improve slum conditions. However, the selection of indicators is related to an objective and value-free process. Therefore, it falls within the critical-objective quadrant presented in Fig. 21.1. This can be explained by its relation to a global normative agenda (Jenkins et al. 2007).

21.3.3.2 Intra-urban Comparisons

Another research reflects increasing interest in the analysis of inequalities at intra-urban level. Here the issue is not to compare cities as global indicators do but to analyze differences within cities (Fig. 21.6).

Martínez (2005, 2009) presents a methodology that allows systematic monitoring of intra-urban inequalities with the use of GIS-based indicators through an indicator matrix and an approach to incorporate a geographical component into the

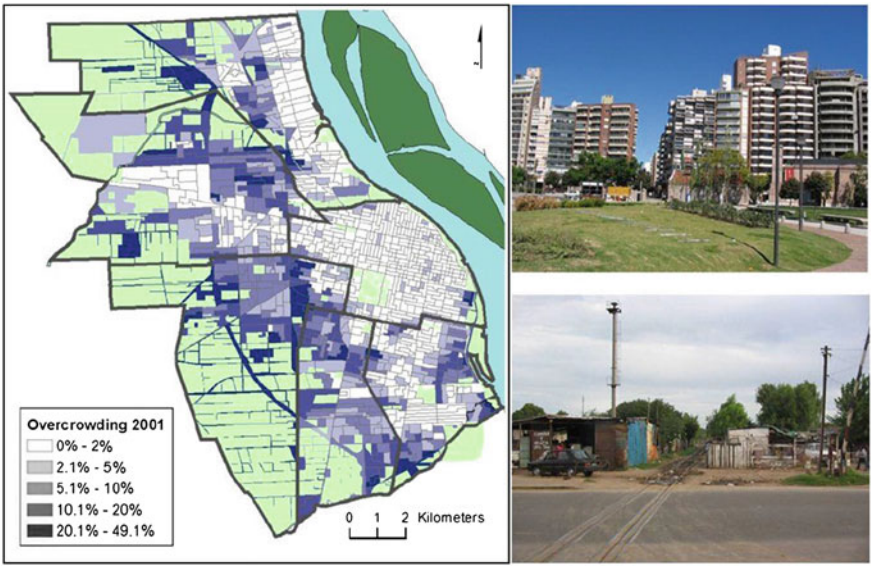

Fig. 21.6 Contrasting quality-of-life conditions. *Source* Martínez (2009)

participatory budget allocation. GIS-based indicators are constructed combining different data sources such as census and administrative data. This methodology is applied in a case study in Rosario, Argentina, and demonstrates how urban indicators and GIS combined are a valuable tool to describe and monitor inequality aspects in quality-of-life conditions and access to services in order to better target resources. In this research, inclusion of the perspective of policy makers was relevant for the selection and validation of indicators. It also looked at the existing practices of indicators' usage.

It is commonly argued that with the construction of policy-relevant information, as indicators are, is possible to help policy makers to reduce inequalities, increase transparency and as a consequence improve governance. However, this research also shows through some interviews with policy makers in Rosario and Liverpool that there are some signs of saturation in the use of indicators. Comments such as 'people are getting tired of this', 'there are times when you just drown in the number of indicators and targets' or 'indicators fatigue' were given during the interviews (Martínez 2005). This shows to some extent the problem of overloading policy makers with measurements, especially if there are overlapping sets of indicators or long lists of indicators. This is mostly related to an over-valorization of its performance measurement role. Some of these learning points are the result of the self-reflective characteristic of critical-inclusive approaches.

21.3.4 2000s: Indicators of Derived and Self-expressed Needs

Another strand observed in the indicators development during the 2000s and in particular in the second half of this decade is the inclusion of measures of subjective or perceived conditions. These measures are more in line with critical-inclusive approaches since they tend to incorporate citizens perspectives. This is very much related to an increasing interest by local governments to capture quality-of-life conditions and citizens satisfaction.

Martínez (2009) incorporated the concept of derived needs, i.e. indicators obtained from census data, and expressed needs, i.e. self-expressed needs derived from administrative data. This reveals the importance of not only considering indicators to measure actual objective conditions but also indicators that reflect the subjective perceptions of the population. This aspect is particularly followed up in the research carried out by Tesfazghi (2009), Tesfazghi et al. (2010) in the city of Addis Ababa. The research was analyzed with the help of GIS combined the objective and subjective quality-of-life conditions. Likewise, the research work of Kumar Dashora (2009) combined GIS visualization techniques with qualitative methods to measure the quality-of-life at neighbourhood level in the city of Enschede (Fig. 21.7).

The main learning point of recognizing and including subjective measures in indicators development has trickled down in subsequent M.Sc. research topics and teaching materials. This is also the result of recognizing multiple sources of knowledge in the construction of indicators, e.g. expert knowledge and local knowledge.

21.3.5 2000s: Capturing Multiple Dimensions

The last element in this period of indicators development and reflected in indicators teaching at ITC is the emergence both in the global north and south of indices of multiple deprivations. In most cases, these indicators practices were triggered by the need to offer policy makers a comprehensive synthesis of indicators and inform the allocation of resources to the most deprived areas. Although indices contain a certain degree of arbitrariness in their construction, Sharpe (1999) concluded, based on a review of numerous economic and social well-being indicators and indices initiatives, that ‘when taken together, they do and can provide a fairly accurate picture of general trends in well-being’.

The emergence of indices of multiple deprivations in the global south is the result of a shift from income or consumption approaches in poverty studies to multidimensional approaches (see, e.g. Baud et al. 2008). This is reflected in the work carried out in India by a group of ITC students which also showed the importance of giving a general picture or a synthesis of several indicators in a single index (Houndebasso Ahoga 2009; Mishra 2009).

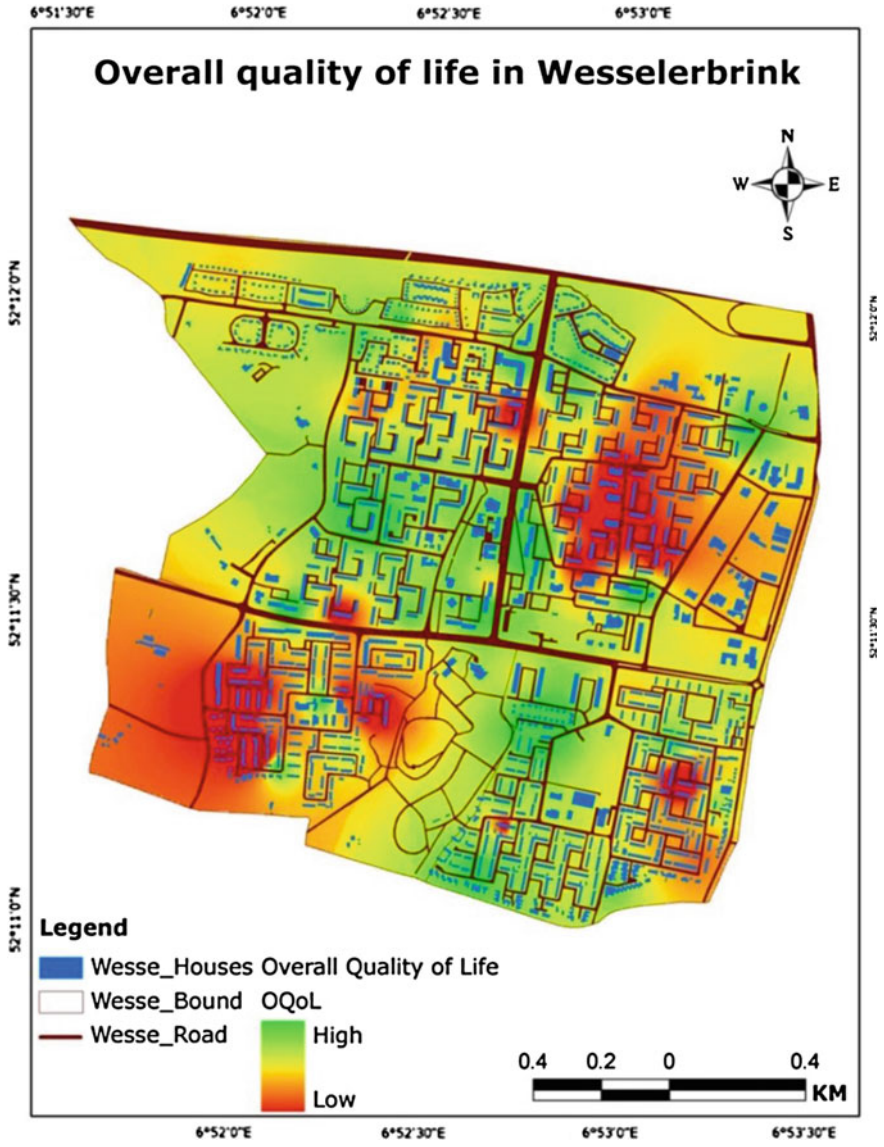

Fig. 21.7 Quality-of-life at neighbourhood level in Enschede-Wesselerbrink. *Source* Kumar Dashora (2009)

The use of indices of multiple deprivations diffused from the United Kingdom experience towards cases in the developing world and other European countries. This is also replicated in the work carried at ITC in relation to a critical analysis of the use of indicators to rank multiple deprived areas by the Dutch government. In the Netherlands, the Minister of Housing, Communities and Integration presented a

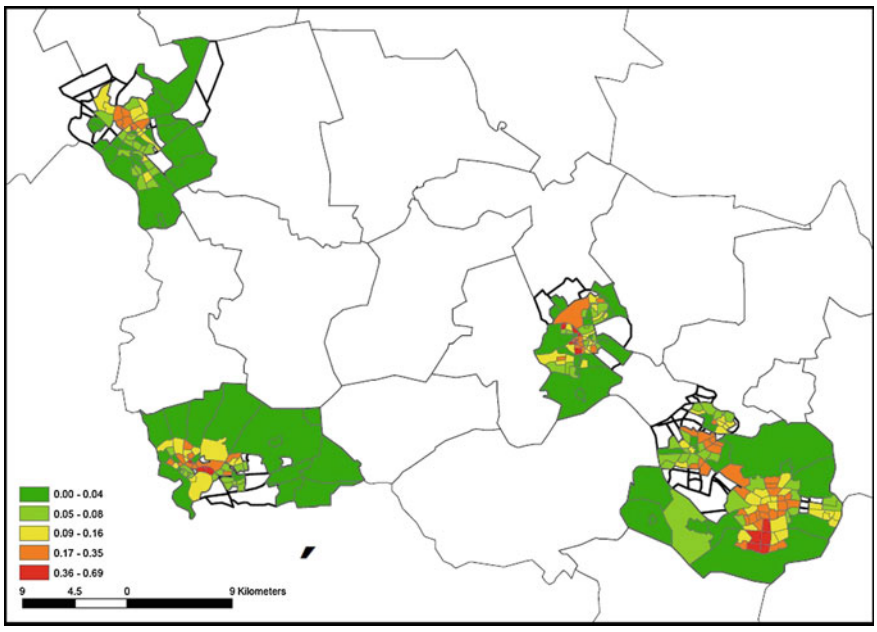

Fig. 21.8 Multiple deprivations across overijssel. *Source* Trisusanti (2008)

ranking of the 40 most deprived neighbourhoods with the objective to allocate extra funds during the cabinet period. They were selected following a list of 18 indicators measuring the following domains: income, employment, education, nuisance and satisfaction of neighbours over their neighbourhood (WWENI 2007). However, some Dutch municipalities did not agree with the ranking list and claim that other neighbourhoods are in higher need than those selected (NRC 2007). Some of the municipalities even started to lobby to have neighbourhoods in the list (Buddingh and Thie 2007). This is an example of how in reality not always policy choices and decisions can be scientifically and mechanistically determined by indicators as in this case local policy makers have a different perspective than the central government selected indicators show. A criticism on the selection of those indicators by Dopheide and Martinez (2007) pointed at the lack of transparency both in the selection as well as the communication of indicators.

The research carried out by Trisusanti (2008) with a case study in the Dutch province of Overijssel also showed how the resulting rank of deprived areas can vary just by altering methods that synthesized the indicators into a final index (Fig. 21.8). In relation to transparency of methods, she also stressed the necessity to check and show the sensitivity of different techniques to policy and decision makers.

Table 21.1 summarizes this section considering for each timeline period and case: (a) the purpose of the indicator study; (b) the learning points and (c) the

Table 21.1 Summary of indicators studies in the last 20 years at Faculty ITC

Timeline	Case	Purpose	Learning points	Indicators development approach
1990s Awareness of relevance of indicators	Chiang Mai, Thailand	Developing indicator system at district level	Compare with the actual allocation of public resources	**Awareness and transition point** from Mechanist-Objective quadrant to Critical-Inclusive. Includes issues of performance and accountability
	Philippine provinces	Developing socio-economic indicators	Absence of reliable data and recommended to apply GIS	
Mid 1990s Relevance of link of indicators with policy	Guatemala city, Guatemala	Analyzing poverty indicators on a spatial context	Homogeneity criteria to delineate census areas	
	Zambales, Philippines	Exploring spatial variation among the municipalities	Emphasis on problem identification and the role of policy makers rather than geo-information tools such as GIS or Remote Sensing. Included discussions with local officials	**Critical-Inclusive** Emphasized learning aspect of indicator development rather than data collection
2000s Inequalities, globalization *Interurban comparisons*	MDG/Global indicators. Interurban comparisons	Analyzing trends and clustering in shelter and slum conditions in different cities in developing countries. Communicating how these conditions are related to other Millennium Development Goals indicators	Communicate with a simple graph the different paths that cities took in shelter indicators improvements. Communicate and advocate for specific policy actions (e.g. improve slum conditions). Interactive indicators maps	**Critical-Objective** Selection of indicators is more related to an 'objective' and value-free process. Relation to a global normative agenda
2000s Inequalities, globalization *Intra-urban comparisons*	Indicators usage. Rosario, Argentina. Liverpool, UK	Monitoring of intra-urban inequalities with the use of GIS-based indicator. Incorporate a geographical component into the participatory budget allocation	'*People are getting tired of this', 'there are times when you just drown in the number of indicators and targets'* or '*indicators fatigue*' were given during the interviews. Critique on the over-valorisation of indicators performance measurement role	**Critical-Inclusive** The inclusion of the perspective of policy makers was relevant for the selection and validation of indicators. It also looked into existing practices of indicators usage

(continued)

Table 21.1 (continued)

Timeline	Case	Purpose	Learning points	Indicators development approach
2000s Indicators of derived and self-expressed needs	Addis Ababa, Ethiopia	Mapping intra-urban Subjective and objective Quality-of-life conditions	Importance of combining objective and subjective perspectives	**Critical-Inclusive** Measure subjective and perceived conditions which are more related to inclusive and critical than 'objective' and mechanistic use of indicators
	Enschede, The Netherlands	Analyzing variations of QoL combining GIS visualization techniques with qualitative methods		
2000s Capturing multiple dimensions	Kalyan-Dombivilli, India	Water Poverty Index and Natural Capital	Indicator Synthesis. Complement Index of Multiple Deprivation	Advocate to more '**Critical-Inclusive'** approaches. [Critique and complementation of existing Indices of Multiple Deprivation]
	The Netherlands	Critique of 40 neighbourhoods selection	Local policy makers have a different perspective than the central government. Importance of transparency in indicators selection	
	Province of Overijssel, the Netherlands	Ranking multiple deprived areas	How the resulting rank of deprived areas can vary just by altering the methods that synthesized the indicators	

Source Compiled by the authors from the ITC work (2015)

indicators development approach in relation to the dimensions of indicators development presented in Fig. 21.1.

The main observation from Table 21.1 is that through this retrospective look at indicators cases at the ITC, we see that from the 1990s there is an increasing recognition of the importance of critical-inclusive approaches with an emphasis on the learning aspects of indicators development and self-reflective practices. A variation on this inclusive approach is observed in the MDG indicators case where a value-free and objective process characterized the choice of indicators. It is towards the end of 2000 decade that we observe indicator cases that incorporate multidimensional framing of indicators, for example, in deprivation and quality-of-life, and the incorporation of multiple sources of knowledge in subjective and perceived conditions.

The experience and reflection on the various research and educational ITC activities allows us to indicate a number of pitfalls in the development of indicators.

21.4 Pitfalls in Indicator Development

One of the main limitations we have observed is that if emphasis is placed on the measurement, the indicator becomes more important than the issue to be measured as shown through the mechanistic dimension in Fig. 21.1. In those cases data availability rather than the validity often determines the selection of the indicator, which could cause an unacceptable large gap between the measurement and the issue to be measured. Academics sometimes put too much emphasis on the number crunching rather than the actual meaning of the indicators, which particularly becomes clear in the construction of indices. The strength of a set of separate indicators to policy makers is sometimes underestimated. Wong explains with the following metaphor that how sensitive indices are to different weightings on individual indicators:

> The weighting scheme used to combine different indicators is indeed similar to a cooking recipe that specifies the quantity of different ingredients to make a dish. It is always intriguing how the taste of a the dish can dramatically change by simply varying the relative proportion of each ingredient used (Wong 2006, p. 81).

The advantage of a set of separate indicators is that they are easier to communicate to policy makers than complex indices that are not transparent to them (Bergström 1997). A related criticism is made by Smith: 'Many individual indicators are highly correlated with one another, and although composite indicators can overcome problems of data overlaps and redundancy, the statistical techniques required are incomprehensible to most politicians and ordinary people (and to not a few academics), which tends to obscure the meaning of the results' (Smith 1994). Criticism also arises because composite indicators are considered too reductionist to translate a complex reality, and choices of weights are not always clear. There is

also the question of whether they are meaningful to the users, such as policy makers and urban planners.

Where objective criterion dominates over inclusive processes as Fig. 21.1 shows, indicator initiatives take insufficiently into account the local needs and are too much driven by the interests of the higher administrative levels as shown in standardization of indicators, problem perception. On the contrary, for a critical approach towards indicators, it seems necessary to consider that an indicator focuses on and renders only intentionally selected and quantifiable areas of the reality (Innes 1990). Eventually, 'policy choices and decisions are value judgements, which cannot be scientifically determined by statistics' (Wong 2006). No set of indicators can show the richness and diversity of reality. There are issues such as informal economy, participation and social cohesion which are difficult to measure.

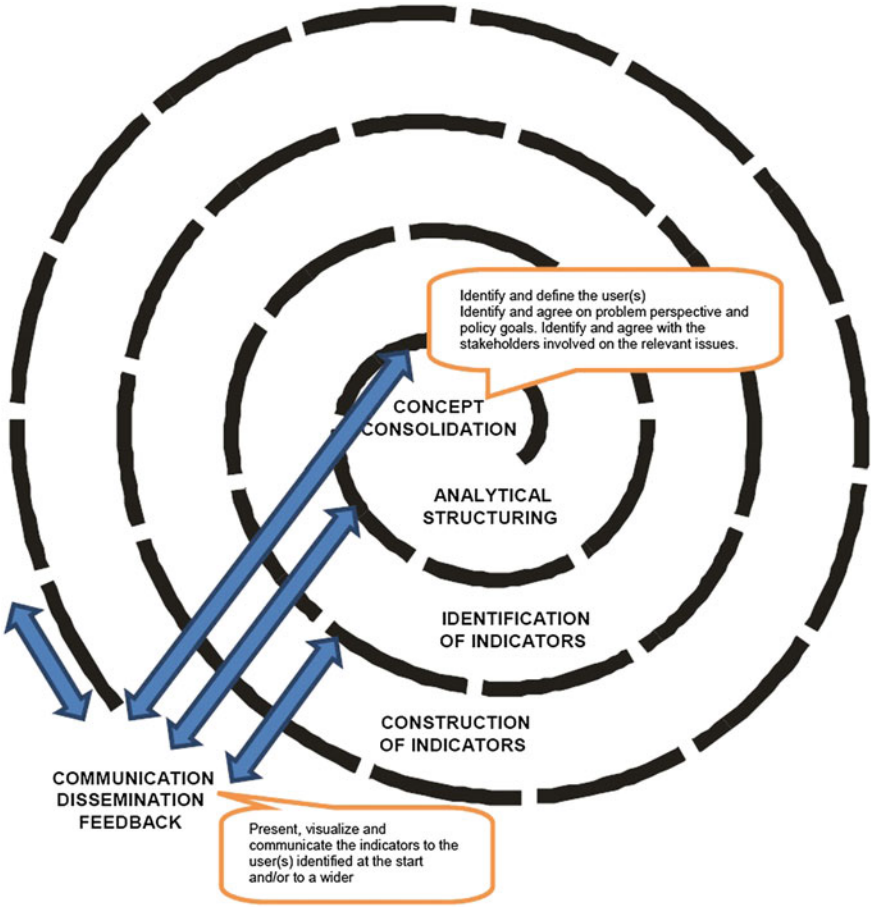

Fig. 21.9 Open spiral learning process for the indicators development. *Source* Adapted from Wong (2006, p. 106)

There are also some limitations in the implementation of indicators. They can be time-consuming and discouraging for policy makers if different initiatives overlap, resulting in an overload of indicators. The value of local knowledge and qualitative analysis are clearly important to complement indicators and especially for internal and local use. Based on these indicators pitfalls and the framework presented in Fig. 21.1, we propose some steps for the indicators development that can improve the learning of indicators as well as facilitate a shift from mere mechanistic and counting function of indicators to a critical and understanding tool. For the development of indicators, some generic steps are usually recognized (see, e.g. Wong 2006, p. 106).

Ideally, throughout all the indicators development steps, involvement of stakeholders could be highly beneficial, particularly in view of further acceptance, use and institutionalization of the indicators. Particularly in the first and last steps the importance of the involvement of the different stakeholders and users of indicators is stressed (Fig. 21.9). The last step related to the communication of the indicators closes the loop of the process bringing new insights to the problem perspective and helping the concept consolidation for future development of the indicators. Emphasizing the iterative characteristic of this process, we propose this as an open spiral learning process. This concept relates to the educational concept of spiral learning and reflective practices. Based on Bruner's theory (Reigeluth 1999) the spiral learning contemplates that 'learners master ideas gradually, after several cycles' (Sockman and Sharma 2008).

21.5 Conclusions

We have defined indicators as qualitative or quantitative data that describe features of a certain phenomenon and communicate an assessment of the phenomenon involved. Among academicians, but also among policy makers with a strong belief in the conviction of the nineteenth century mathematical physicist Lord Kelvin's 'If you cannot measure it, you cannot improve it', the emphasis in indicator development and use has been and often still is on the measurement and quantification of complex phenomena. The quantification of complex phenomena is certainly an important element of indicators' initiatives. However, our experience in a number of smaller indicator development activities in research and education at our faculty show again and again that for a successful implementation and uptake of indicators, stakeholders' participation, iterations and communication throughout all the steps of indicator development, particularly in the identification and presentation, is paramount. The quantification in itself is insufficient to make the indicators attractive, valid and appealing for their use among policy and decision makers. Feedback and learning among the various stakeholders involved is crucial. Successful indicator development initiatives move away from the mechanistic-objective approach towards a more critical-inclusive approach. This approach will pay explicit attention to the elements of communication, information sharing, collaboration, learning and empowerment.

References

Alexander, E. (2011). Evaluating planning: What is successful planning and (how) can we measure it? In: A. Hull, E. Alexander, A. Khakee & J. Woltjer (Eds.), *Planning evaluation for participation and sustainability in planning.* London: Routledge.

Arjagaruka, M., Karki, C., Regmi, K. P., Okeyo, E., Kathendu, N. J., Marte, M. V., Casuga, K. Q., Mollah, H. R., Kyariga, A. T., Ganuseb, S. & Kimsreang, B. (1998). Spatial variation across municipalities in problems and potentials: The case of the province of Zambales, republic of the Philippines. Enschede, ITC.

Asensio, S. (1997). Targeting the poor: Poverty indicators in a spatial context. *ITC MSc-thesis.* Enschede: ITC.

Baud, I., Sridharan, N., & Pfeffer, K. (2008). Mapping urban poverty for local governance in an Indian mega-city: The case of Delhi. *Urban Studies, 45*, 1385–1412.

Baud, I. S. A., Pfeffer, K., Sridharan, N., & Nainan, N. (2009). Matching deprivation mapping to urban governance in three Indian mega-cities. *Habitat International, 33*, 365–377.

Bergström, S. (1997). Sustainable development management. In: T. Deelstra & D. Boyd (Eds.), *Indicators for sustainable urban development.* Delft: The International Institute for the Urban Environment.

Bovaird, T., & Loffler, E. (2003). Evaluating the quality of public governance: indicators, models and methodologies. *International Review of Administrative Sciences, 69*, 313–328.

Buddingh, H., & Thie, M. (2007). Lobbyen om op een negatief lijstje te komen. *NRC.*

Cobb, C. W., & Rixford, C. (1998). *Lessons learned from the history of social indicators*. San Francisco: Redefining Progress.

Couclelis, H. (1999). Spatial information technologies and societal problems. In: M. Craglia, & H. Onsrud, (Eds.), *Geographic information research: Trans-atlantic perspectives*. London: Taylor & Francis.

Davoudi, S. (2006). Evidence-based planning: Rhetoric and reality. *disP*, pp. 14–24.

Dopheide, E. J. M., & Martinez, J. (2007). Hoe scoort mijn wijk? *Rooilijn, 40*(5), 338–343.

Flood, J. (1997). Urban and Housing Indicators. *Urban Studies, 34*, 1635–1666.

Ghose, R., & Huxhold, W. E. (2002). The Role of multi-scalar GIS-based indicators studies in formulating neighbourhood planning policy. *URISA Journal, 14*, 5–17.

Higginson, S., Walker, P., Terry, A. & Robbins, C. (2003). Making indicators count. How to make quality of life indicators make a difference to quality of life. Bristol, New Economics Foundation—Faculty of the Built Environment UWE.

Houndebasso Ahoga, J. A. M. C. (2009). *Mapping profiles of service provision in poverty analysis: A case of water delivery in Kalyan–Dombivli, India*. Enschede: ITC.

Infante, A. P. (1992). *Towards a framework using socio—economic indicators for planning and project development processes*. Enschede: ITC.

Innes, J. E. (1990). *Knowledge and public policy: the search for meaningful indicators*. New Brunswick: Transaction Publishers.

Jenkins, P., Smith, H. & Wang, Y. P. (2007). Planning and housing in the rapidly urbanising world. *Housing, planning and design series*, 368.

Knox, P., & Pinch, S. (2000). *Urban social geography: An introduction*. Harlow: Prentice Hall.

Kumar Dashora, L. (2009). *Visualisation of urban quality of life at neighborhood level in Enschede*. ITC: Enschede.

Martínez, J. (2005). *Monitoring intra-urban inequalities with GIS-based indicators. With a case study in Rosario, Argentina.* Enschede: Utrecht University—ITC.

Martínez, J. (2009). The use of GIS and indicators to monitor intra-urban inequalities. A case study in Rosario, Argentina. *Habitat International, 33*, 387–396.

Martínez, J., Mboup, G., Sliuzas, R., & Stein, A. (2008). Trends in urban and slum indicators across developing world cities, 1990–2003. *Habitat International, 32*, 86–108.

Mishra, S. (2009). *Exploration of environmental capital in context of multiple deprivation: A case of Kalyan–Dombivili, India*. Enschede: ITC.

Natoli, R., & Zuhair, S. (2011). Measuring Progress: A Comparison of the GDP, HDI, GS and the RIE. *Social Indicators Research, 103*, 33–56.
NRC. (2007). Gemeenten kritiseren wijkenlijst. *NRC*.
Reigeluth, C. M. (1999). Instructional design theories site. Retrieved June 21, 2010 from http://www.indiana.edu/~idtheory/home.html
Sharpe, A. (1999). A survey of indicators of economic and social well-being. *Ottawa: Canadian Policy Research Networks*. Retrieved March 24, 2014 from http://www.cprn.org
Smith, D. M. (1973). *The geography of social well-being in the United States: An introduction to territorial social indicators*. New York: McGraw-Hill.
Smith, D. M. (1994). *Geography and social justice*. Oxford: Blackwell.
Sockman, B. R., & Sharma, P. (2008). Struggling toward a transformative model of instruction: It's not so easy! *Teaching and Teacher Education, 24*, 1070–1082.
Tesfazghi, E. S. (2009). *Urban quality of life and its spatial distribution in Addis Ababa: Kirkos Sub-City*. ITC: Enschede.
Tesfazghi, E. S., Martinez, J. A., & Verplanke, J. J. (2010). Variability of quality of life at small scales: Addis Ababa, Kirkos Sub-City. *Social Indicators Research, 98*, 73–88.
Trisusanti, E. (2008). *Constructing indices of multiple deprivation for neighborhood ranking: A case study on five municipalicties in province of Overijssel*. ITC: Enschede.
UNCHS. (2000). The Global Urban Observatory's Training Manual. Nairobi.
UNDP. (1990). *Human development report*. New York: Oxford University Press, Palgrave Macmillan.
Wong, C. (2000). Indicators in use: Challenges to urban and environmental planning in Britain. *Town Planning Review, 71*, 213–239.
Wong, C. (2006). *Indicators for Urban and Regional Planning: The interplay of policy and methods*. London and New York, Routledge: Taylor and Francis group.
Wong, C. (2011). Decision-making and problem-solving: Turning indicators into a double-loop evaluation framework. In: A. Hull, E. Alexander, A. Khakee, & J. Woltjer (Eds.), *Planning Evaluation for Participation and Sustainability in Planning*. London: Routledge.
WWENI. (2007). Samen buurten, samen binden.

Chapter 22
Sharing Planning Skills Across Borders: International Volunteers Helping Build Planning Capacity in Zambia

Peter Cockhead and M.C. Hemalatha

Abstract Volunteer town planners have been helping to build local capacity in town planning in Zambia in a programme devised and delivered by international development charity VSO. The programme aims to provide appropriate skills to implement Zambia's overhaul of its planning framework and the decentralisation of planning functions. The authors have each contributed to the programme. They brought to it very different backgrounds: an Indian architect-planner trained at University of Mysore with extensive international consultancy experience in the Middle East, and a retired Scottish town planner who has worked in government, consultancy and academia in Scotland, Europe and Africa. The chapter assesses the impact of the VSO programme on planning in Zambia and on the volunteers themselves. It examines the planning approaches and skills appropriate to planning in contemporary Africa particularly the need planning for and with informality. It reflects on the broader lessons for planning education and training through a case study of the preparation of an Integrated Development Plan the extent to which planning skills are transferable between development contexts.

Keywords Skill sharing · Volunteering · Decentralisation · Informality · Postcolonial planning

22.1 Introduction

Faced with a shortage of town planners to implement their proposed decentralisation of planning functions to District Councils, the Zambian Government in 2010 sought the assistance of international development charity VSO to help build local

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planning capacity. The resultant training programme has now been operating for 4 years. It is delivered through volunteer international town planners placed with planning authorities in Zambia where they share planning skills and organise training programmes to disseminate this knowledge to a wider group.

The paper describes and reviews the VSO capacity building programme, the challenges experienced and impacts achieved. It reflects on the extent to which planning skills and approaches are universal in applicability and transferable across international boundaries, between very different planning systems and environments.

Although primarily geared to the training of local planners on the job, the VSO programme has also helped facilitate the establishment of a new degree programme in Zambia, a radical new departure in African planning education, focussed on planning for and with informality, and being explicitly pro-poor. Fifty years after national independence is Zambian planning eventually moving away from colonial planning? We attempt to answer this question too.

22.2 Objectives of VSO Programme in Zambia

VSO is one of the world's largest international charitable development organisations. Its distinctive approach is the deployment of international volunteers to work with local partners, transferring skills and building capacity in their staff. The title of VSO's strategy 'People First' aptly summarises this approach (VSO 2011). Headquartered in London, VSO has offices in many countries and six recruiting bases for international volunteers including in India.

Development support is provided in four thematic areas: Education; Health, HIV and AIDS; Participation and Governance; and Secure Livelihoods. Support programmes are tailored to a country's particular needs and those of local partner organisations. VSO responds to requests for assistance from local organisations. It then develops a detailed support programme with that partner organisation and requires them to make an appropriate commitment to it. In the financial year 2013–2014, almost 1,500 international volunteers were deployed by VSO, working in 35 countries and contributing over 300,000 volunteer days (VSO 2014).

The potential for VSO support to town planning in Zambia was first identified after the VSO Zambia Office organised a study tour to South Africa in 2007 for a group of Council Town Clerks as part of VSO's support to participation and governance in Zambia. The group saw how the preparation of Integrated Development Plans (IDPs) was providing an effective focus for tackling urban planning and development issues. Following the tour, two of the participating councils, i.e. Mazabuka and Choma requested that VSO provide volunteer planners to assist them strengthen their capacity in planning and to prepare IDPs. Those placements took place between 2007 and 2009.

The impact made by the two volunteer town planners led to similar requests to VSO from other councils. Zambian Government was also concerned at a chronic

shortage of town planners to deliver their proposals to decentralise more planning functions and approached VSO to see if it could provide a structured programme of support (Cockhead 2009). A MoU was signed in 2010 for a joint funded programme of VSO volunteer support. This envisaged volunteers placed with provincial planning authorities, building capacity across their respective district councils. A placement assisting the government planning departments at the national level was also agreed.

Since 2010, twenty VSO volunteer international planners have been deployed in Zambia; a mix of short-term (1–6 months) and long-term volunteers (from 6 month to 2 years). Planners have come from 9 countries; Canada, China, England, Ireland, Netherlands, Scotland, USA, Uganda and India, bringing a mix of skills, experiences and perspectives.

The main focus of the support programme has been providing training within authorities, working alongside Zambian planners, transferring skills and building capacity. As explained in this chapter, the second strand of support was subsequently developed, helping to facilitate the expansion of formal planning education.

22.3 Zambia Development Context

Located centrally in the sub-Saharan Africa, Zambia is a geographically large country of 752,618 km^2 but for its size a relatively small population is estimated at 14.54 million in 2013. It is four times the size, but has a population of only 20 % of that of India's Karnataka state. Landlocked, Zambia borders 8 countries with its main trade links being through Tanzania to the north east and via Zimbabwe through South Africa to the south east (see Fig. 22.1).

Although HIV and AIDS have in recent years significantly increased mortality rates, Zambia has been experiencing a rapid growth in population which is expected to continue. The United Nations Population Division predicts that in the period to 2100 Zambia will have the fastest population growth of any country in the world, and by 2100 will have the youngest median population age of any other country in the world (UN 2013).

Despite its low overall population density, Zambia is one of the most urbanised countries in Southern Africa with almost 40 % of its population classified as urban. The urban population is largely concentrated in Zambia's capital Lusaka which has an enumerated population of 1.74 million in 2010, the country's 3 other cities (Kitwe, Livingstone and Ndola) and 15 towns classed as municipal councils. The main urban concentrations have developed along 'the line of rail' between Livingstone, Lusaka and Chililabombwe, which links the main centres of economic activity particularly to the copper and nickel mines in the north west of the country (Figs. 22.2 and 22.3).

Apart from mineral exploitation, Zambia's economy is largely founded on agriculture and tourism, the latter including the world famous attractions of Victoria Falls and the South Luangwa game park. Zambia was recently upgraded in the

Fig. 22.1 Location of Zambia

Fig. 22.2 Zambia main towns and infrastructure

World Bank's country development classification to a 'lower middle income country', although in respect of many development indices the country ranks low and is judged in need of international aid (World Bank 2014). Like much of

Fig. 22.3 Zambia main towns and national parks

sub-Saharan Africa, Zambia has been afflicted over the last 30 years by the HIV and AIDS epidemic. In 2012, 1.1 million of the population were infected, including 13 % of the 15–49 age group. The consequences have been devastating, not only for the society but also for economic productivity because of the high mortality rate in the main economically active age groups.

A former British colony (Northern Rhodesia) Zambia achieved independence in 1964 and on 24 October 2014 celebrated its 50th anniversary of independence. It has been a peaceful period with changes in government determined at the ballot box. One of the characteristics of the immediate postcolonial period was the rapid growth of towns and cities. Under colonial administration, there were rigid restrictions upon the local population taking up permanent settlement in towns (Fig. 22.4). With independence, people flocked to towns to seek new opportunities. Housing was not readily available and this led to land being illegally taken to erect shacks. This gave birth for informality. Illegal and informal housing became the main form of housing as urbanisation increased over subsequent years and also supported an expanding informal urban economy.

Fig. 22.4 Aerial view of Msisi informal settlement, Lusaka, 2010

Zambia's capital Lusaka typifies the way in which urbanisation has taken place. Lusaka being declared the country's capital in 1931, a city plan was commissioned at that time from eminent British planning Professor Adshead whose plan for Lusaka was based on Ebenezer Howard's garden city principles. By 1963 the year before independence, Lusaka's population had grown to 123,000. By 1974 a decade after independence, its population had virtually quadrupled to 421,000 much in new unplanned informal settlements, not provided for in the plan set down by Adshead (Mulenga 2003).

Over the last 40 years Lusaka's population has continued to grow rapidly to reach 1.74 million in 2010. The proportion of Lusaka's population living in informal settlements has grown from 15 % in 1968, to 42 % in 1974 to 70 % (Hansen 1997). A similar situation applies in all of Zambia's other cities and large towns. Informality is the reality of urban development in Zambia. It brings with it many problems, not least the health issues arising from the lack of proper sanitation aggravated during the rainy season with frequent flooding of residential areas (see Fig. 22.5).

22.3.1 Zambia's Planning Framework

As for many African countries Zambia's planning framework still reflects its colonial past, and in Zambia's case the British approach to land use planning. Notwithstanding 50 years as an independent state Zambia's planning legislation remains largely unchanged from that which applied at independence in 1964. This might be viewed as a measure of the continued relevance and appropriateness of that legislation. More probably it is a measure of inertia as most would view the

Fig. 22.5 Flooding in Msisi settlement, 2008

planning legislation (and associated building regulations also rooted in British law and practice) as increasingly irrelevant and inappropriate to urban issues in Zambia.

Early twentieth-century town planning in Zambia was geared to providing laid out towns for the white colonial administrators and company employees. The native workforce was largely housed in temporary compounds. Some relaxation of these regulations came with the Urban African Ordinance in 1948, but urban development was still viewed from a colonial perspective. The Town and Country Planning Act, 1962 mirrored the planning legislation applying at that time in Britain (Mwimba 2002; also see Fig. 22.6). One significant difference was that the planning Act only applied to land designated as 'state land', essentially urban land, the remaining land in Zambia (over 90 %) being classed as 'customary land' controlled in the past by the local chiefs remained out of the ambit of planning. Whilst there have been subsequent amendments to the Town and Country Planning Act, it remains essentially unchanged from 1962 (UN-Habitat 2009).

The early 1970s faced with the rapid influx of population to urban areas and their housing in unplanned squatter housing, Zambian Government introduced new legislation to provide for the improvement and regularisation of squatter compounds. The Housing (Statutory and Improvement Areas) Act, 1974 was at the time a landmark piece of housing legislation in Africa in responding to the realities of informal housing (see Fig. 22.7). It still exists in legislation although its relevance has been diminished by the scale and continued growth of informal housing (UN-Habitat 2012).

Thus Zambia currently has two planning acts, the Town and Country Planning Act, 1962, which sets the framework for formal and legal developments, and the Housing (Statutory and Improvements Areas) Act, 1974 for the regularisation of

T&CP Act

Provides the planning framework for formal development on state land by:

- Establishing Planning Authorities and providing for:
- Development (Structure and Local) Plans
- Development and subdivision of land
- Granting of planning permission
- Appeals to T&CP Tribunals
- Enforcement notices
- Compulsory acquisition of land
- Public Inquiries
- Changes of use not requiring pp

Approved by Minister for LG and Housing

Housing (S&IA) Act

Provides the framework for regularisation of squatter compounds by:

- Enabling declaration by Planning Authorities of:
- Statutory Housing Areas on land of site and service schemes with demarcated plots
- Improvement Areas on land of squatter compounds with undemarcated plots and providing for:
- Statutory Housing Area Plans in SHA's
- Improvement Area Plans in IA's (setting out location of each building, roads to be constructed, common use areas)

Approved by Surveyor-General

Fig. 22.6 Zambia's two planning acts

Fig. 22.7 Zambia's 10 provinces

informal developments. In some respects the two pieces of legislation are inconsistent with each other, and they are operated through different branches of government.

Under the existing Town and Country Planning Act, town planning is very much centralised. Planning powers are limited to the country's 4 city and 15 municipal

councils, the planning for the remaining 105 district councils being undertaken by their respective Provincial Planning Authority. Those provincial planning authorities, of which there are 10, are effectively arms of Ministry of Local Government and Housing (MLGH) and their staff report to the Ministry's Director of Physical Planning.

Planners and the planning profession in Zambia largely focus on the implementation of the Town and Country Planning Act. Planning for informal developments is not accorded high priority. Whilst this is understandable as professional practice, it is governed by the legislation and terms of employment. The reality is that 50 years after independence Zambian planners are still essentially practicing colonial planning focussed on layout plans for formal developments. As a result, it is argued by Mwimba (2006) that urban development in Zambia that is taking place without any urban planning, where 'planning practice is unresponsive and the profession is dead'. Whilst planning in the global north is focussing on the sustainability of cities and environmental considerations, urban planning in low income countries needs to respond to the traditional problems of cities and urbanisation, especially public health that prompted the establishment of the profession.

A major overhaul of planning legislation is however proposed and the VSO planning programme in Zambia is intended to facilitate the effective implementation of this. With funding from the Swedish Development Agency and SIDA international consultants, Hifab undertook a review of Zambia's existing planning framework in 2007–2009 and proposed a fundamental revamp of Zambian planning legislation to more appropriately reflect the conditions and needs of the country (Hifab 2008). Following detailed consultations, comprehensive proposals were set out in a draft Urban and Regional Planning Bill in 2010. This Bill is intended to replace both existing planning and housing acts. Its main proposals are: planning powers should cover all land in Zambia, customary as well as state land; a common planning approach should be applied to formal and informal developments; a focus should be placed on new Integrated Development Plans; public participation should form part of plan preparation; and planning powers should be decentralised to all district councils. Perhaps not surprisingly given the seismic changes being proposed, the bill has experienced various delays and is still awaiting approval.

Meantime Zambian planning continues to operate under existing legislation although the government has encouraged planning authorities to prioritise the preparation of development plans in the style of the proposed new Integrated Development Plans.

22.3.2 VSO Volunteer Placements in Planning Authorities

Over the last 4 years over 20 VSO international town planners have undertaken placements in Zambia. Most have worked with the provincial planning authorities. VSO planners have been placed with 7 of the 10 provinces, but planners have

additionally been placed with MLGH headquarters and with UNZA in Lusaka. In some authorities, there has been a succession of placements where support needs are deemed greatest and to ensure that established impact is not lost but built upon.

The VSO planners come from different backgrounds and bring with them different experience, skills and ethics. Mostly they have western planning backgrounds but not exclusively as evidenced by planners recruited from China, India and Uganda.

Although the central role for all the planning volunteers has been to build local capacity to enable more effective town planning and facilitate decentralisation to district councils, the particular contributions they have made have been determined by their employer's priorities and needs, and by their own skills and experiences. The main areas of planning work to which VSO planners have contributed include:

- GIS mapping to establish accurate base maps and geospatial database
- Data gathering to support plan preparation
- Population projections
- Development plans, particularly Integrated Development Plans
- Informal settlement upgrading plans
- Public participation
- Housing layout plans for new formal residential development
- Waste planning
- Planning application procedures
- Land surveying
- Coordination with other agencies particularly GIZ and JICA

The following case study illustrates the context and practicalities experienced by the VSO planning volunteers and how they have delivered on planning education.

22.4 The Case Study of Kapiri Mposhi Integrated Development Plan

The case study focuses on the role of a VSO planner in facilitating the preparation of an Integrated Development Plan (IDP) for Kapiri Mposhi. An experienced English urban designer and development planner, he spent 2 years working with the Central Provincial Planning Authority from February 2012 to March 2014. Whilst he became involved in supporting many areas of planning in the Province, the centrepiece of his work was supporting the preparation of the Kapiri Mposhi IDP (Fox 2014).

As noted earlier in this chapter, IDPs are regarded as the cornerstone of the proposed new planning legislation in Zambia, integration in bringing together social, economic and environmental issues for the first time, inclusive through public participation, and deliverable by being financially realistic and focused on a detailed action plan remains its focus areas.

Although the new Urban and Regional Planning Bill which includes the requirement for all district councils to prepare IDPs has yet to be approved by

Parliament, MLGH has been keen to initiate these new style development plans, the Minister decreeing in 2007 that pilot IDPs be prepared for 12 districts facing particular development pressures. Some of these IDPs were to be commissioned from Zambian consultants whilst others were to be prepared by provincial planning authorities. One of these was an IDP for Kapiri Mposhi in Central Province, Zambia's road and rail systems 'junction town' and a district of 250,000 people experiencing rapid population growth. The IDPs were to be undertaken in three stages—a status quo report (the survey), development framework, and a final IDP with action plan.

Work on the Kapiri Mposhi IDP started in 2009 and aimed to be completed in 12 months. By early 2012 the IDP like most other pilot IDPs had stalled at the first stage, the status quo report, local staff and government sector experts having cast the net wide to gather information with little thought on how this was to be analysed and used to inform and guide the plan. The team was disillusioned and the absence of any guidance from MLGH as to how an IDP should be prepared does not help.

The initial involvement of the VSO planner was to help getting the IDP back on track, rebuilding staff confidence and helping provide direction to the exercise. This was achieved by drawing out the main issues from the survey, and setting out a clear and realistic programme for the IDP's preparation. This was aided by draft government guidance on preparing IDPs issued in April 2012 (MLGH 2012), this guidance having been facilitated by the VSO planner based with MLGH headquarters.

Major gaps in the survey information also needed to be filled. The first was the preparation of population and household projections, which had not been undertaken as the local team literally interpreted the status quo report as being restricted to an analysis of the current situation rather than likely change over the 15-year planning period. The second was the need to develop GIS mapping to add a spatial dimension to the analysis. In both these areas the VSO planner was again able to draw upon the work and experiences of other VSO planners in Zambia.

The VSO planner's next major contribution was facilitating community engagement and securing local commitment to the IDP process and the IDP itself. Drawing upon the experiences of previous VSO planners working with other Zambian authorities, the 'walking tour approach' was deployed with organised tours through different parts of the town to meet and discuss local issues with residents and businesses (Figs. 22.8 and 22.9).

Stakeholder workshops were facilitated by the VSO planner at various stages of the IDP's preparation. They included a SWOT analysis, a visioning exercise, and a workshop to select a preferred development scenario for Kapiri Mposhi. Significantly the IDP team selected a development scenario based on 'compact city' principles, quite different to the normal Zambian 'formal' planning strategy of low density car-oriented development and better suited to the realities of informality and the upgrading of existing informal settlements in Kapiri Mposhi.

The preferred development scenario for the town was then 'fleshed out' into a detailed development framework setting down proposed land use allocations, land management policies and the key infrastructure projects necessary to facilitate it. These key projects were the subject of another stakeholder workshop to secure

Fig. 22.8 IDP walking tour in Kapiri Mposhi

Fig. 22.9 IDP stakeholder workshop

agreement on priority, timing and funding, enabling the preparation of a detailed action plan and capital investment programme each forming part of the final IDP (Figs. 22.10 and 22.11).

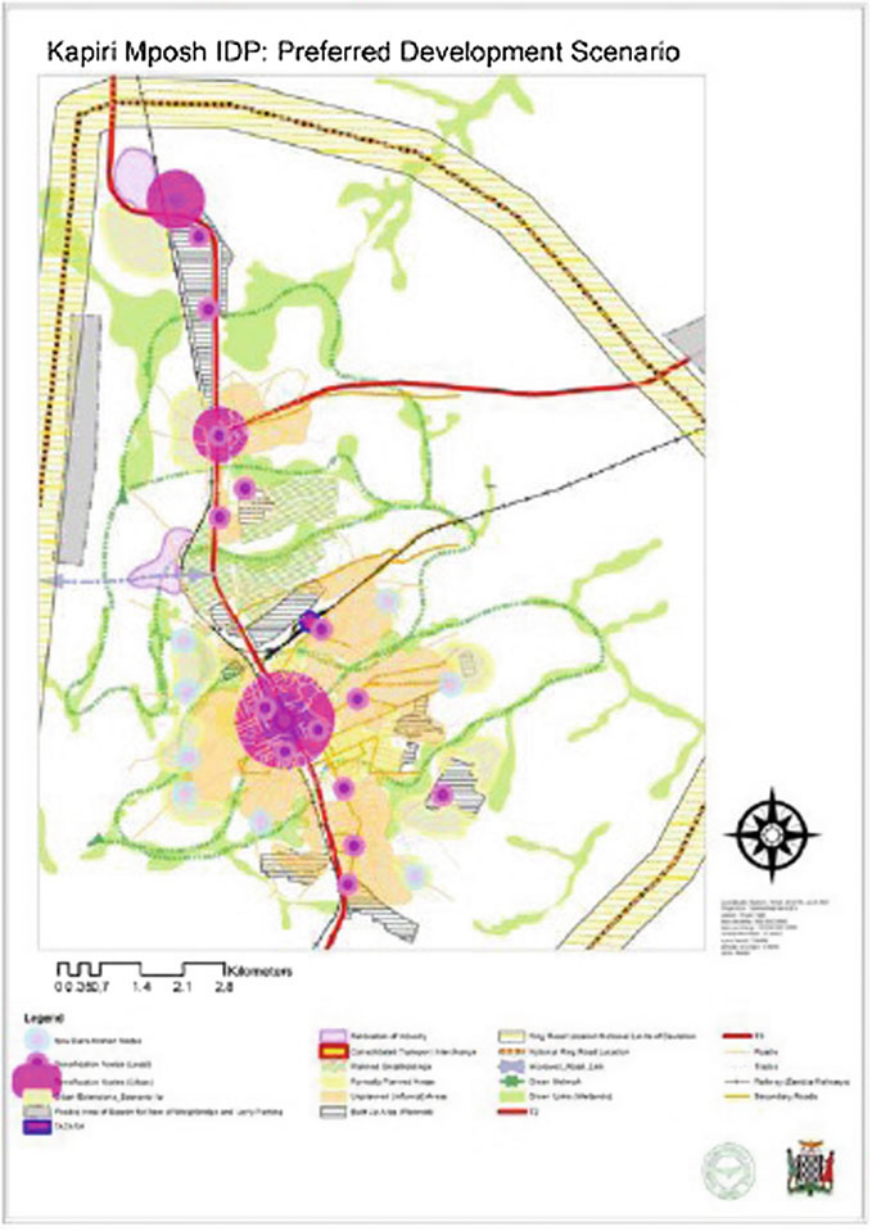

Fig. 22.10 Kapiri Mposh development scenario

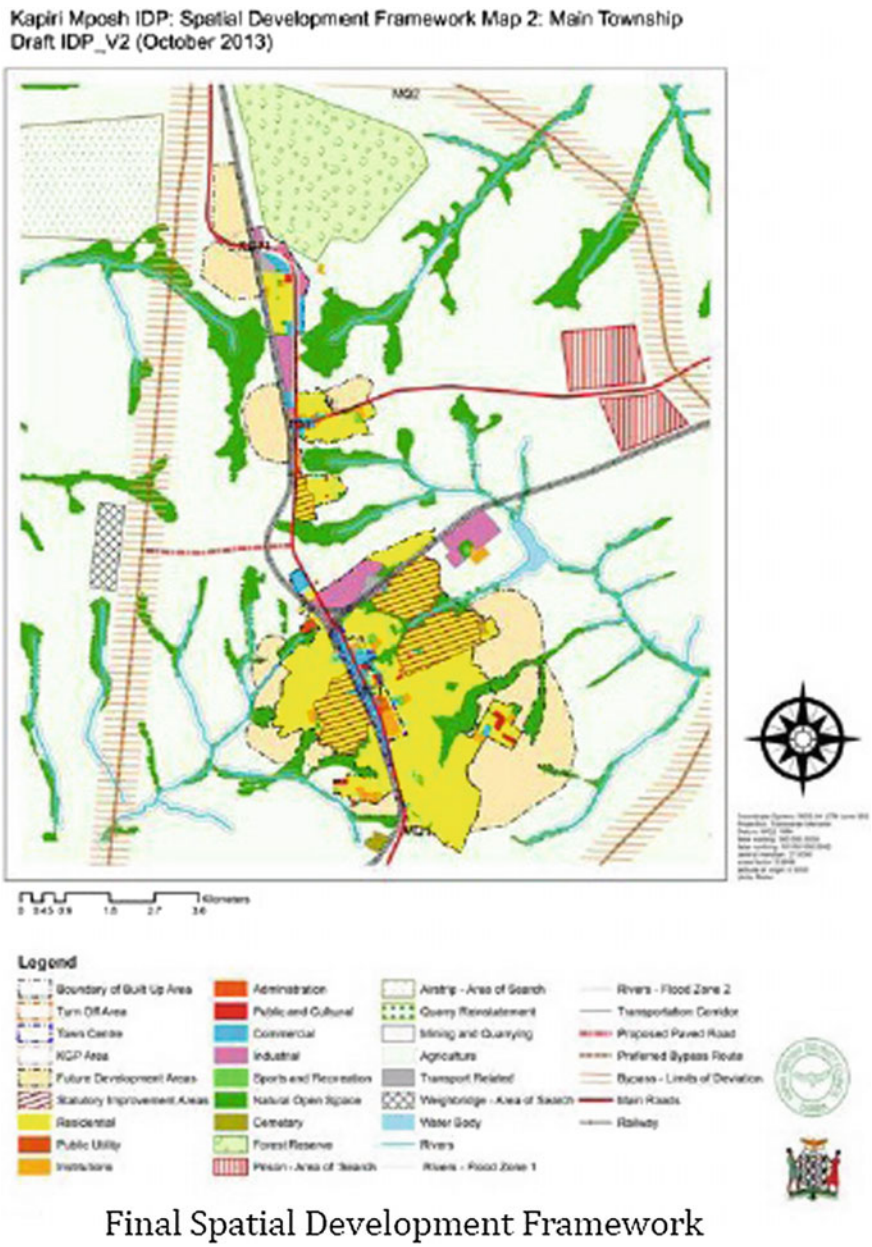

Fig. 22.11 Kapiri Mposh IDP

The final IDP document, whilst not yet formally adopted, has been recognised as a model of best practice and is being used to guide the preparation of IDPs elsewhere in Zambia. VSO has also committed further to the project by placing another short-term VSO volunteer planner with Central Province, this time from Holland, to help take the action plan for the Kapiri Mposhi IDP into implementation stage.

The legacy from the VSO placement has included: a clearer understanding of the spatial planning process by district and provincial staff and politicians; recognition of the importance of urban design principles; appreciation of the value of community engagement and stakeholder participation; greater confidence within the community of their ability to engage in the governance process; and a greater sense of ambition and community vision. The VSO planner also produced an excellent Urban Design Handbook now being used as draft planning guidance by MLGH (MLGH 2014).

22.4.1 Major Issues

The particular experiences of each volunteer inevitably differ depending upon the needs of their particular placements and the volunteer's own skills and approach to planning. However, many issues have been common to all. First and perhaps the most fundamental is the challenge of planning with minimal data and the absence of accurate map bases—inputs that for most planners are taken as given. This has often required 'going back to basics' in compiling information on the current situation and likely development pressures and needs in the future. GIS has been a key tool in generating basic mapping and a framework for developing a data base.

Second, for most of the international volunteers the reality and challenges presented by informal housing is a totally new professional and personal experience and requires deep personal and professional reflection. This challenge is often complicated by counterpart local planners they are working with ignoring informal developments and wishing to solely focus on 'proper planning' for formal developments.

Third, streamlining the process of development planning and making this process inclusive of 'the planned' has also been a common issue. Planning in Zambia is top down drawing in many sector experts but rarely involving the local communities. The volunteer planners have challenged this approach, simplifying and streamlining data collection and deploying innovative ways to involve the communities in the planning process. Fourth, one common issue faced by many of the volunteers has been the shortage of local staff to work with and train, and the expectation that volunteers themselves will 'gap fill' and undertake key tasks. 'Showing by doing' rather than mentoring and training has sometimes been the only practical approach.

Finally, the ethics and priorities of local staff often raise frustrations for the VSO volunteers. Because local salaries in the public service in Zambia are relatively low, planners like other local staff, will try to maximise their income in other ways

particularly through attendance at workshops for which additional allowances are paid. The 'allowance culture' initially introduced by NGOs is the curse of the public sector in Zambia and can lead to a total distortion of work and personal priorities in pursuit of allowances. There are also other practices which are questionable and undermine local staff's commitment to mainstream work, and are a major frustration for volunteers.

22.5 New Planning Degree Programme at UNZA

Whilst VSO's support to planning in Zambia was designed to build local capacity through volunteers working alongside and transferring skills to Zambian planners, the engagement of VSO with government and the profession in the country has also helped lead to the establishment of a new university planning education programme. This programme is not only intended to increase the number of locally qualified planners but is also geared to provide training in planning for, and with informality. As such it marks a major initiative in planning education in Zambia, and in Africa.

Formal planning education in Zambia dates from the early 1970s when a course to train planning technicians was introduced by the Zambia Institute of Technology. At that time, prospective planning professionals were expected to study overseas. It was only in the late 1980s that a professional planning degree was introduced, a five-year undergraduate degree at the Copperbelt University (CBU), in structure and curriculum modelled on the then planning degree programmes at London University. After a slow initial uptake, the programme has in recent years attracted more students. However, the CBU curriculum is now viewed as being overly biased towards physical planning and land use management, inadequately preparing students for the current planning realities in Zambia (Phiri 2008).

Besides training through the CBU undergraduate programme, the other educational route into professional planning posts has usually been through a geography degree at the University of Zambia (UNZA) followed by a postgraduate degree in planning overseas, usually in Europe or USA. Senior government planning posts in Zambia require a postgraduate qualification, which until recently has meant overseas study is obligatory. Thus whichever training route has been followed by Zambian planners, their training has been largely based on western planning theory and practice.

From its assessment of planning capacity in Zambia, particularly the needs arising from decentralisation and the draft Urban and Regional Planning Bill, it was obvious to VSO that the number of professional planners being trained must be increased, and that education programmes must be oriented to the real planning needs in Zambia. VSO initiated discussion on this with the government and universities.

By coincidence the Association of African Planning Schools (AAPS) have been debating about revitalising planning education in Africa (AAPS 2010), and with funding from the Rockefeller Foundation have developed a model postgraduate planning degree programme focused on African planning issues (Watson and Odendaal 2012). As part of this project five toolkits were developed covering: actor collaboration, climate change, the informal economy, cultural landscapes, and spatial planning and infrastructure all available on the AAPS website: www.africanplanningschools.org.za.

In 2011, the AAPS were looking for a university to pilot this programme and made contact through one of the authors to see if UNZA might be interested in collaboration. They were, and an initial meeting between the AAPS and UNZA was held in Lusaka in October 2011. VSO also helped facilitating broader support to this initiative involving Zambia's Ministry of Local Government and Housing (MLGH), the University of Dundee (to which the author was affiliated), and VSO itself. All subsequently assisted UNZA in the development of the curriculum, and Zambian Government established and funded a student scholarship scheme. In October 2013, the new 2-year M.Sc. in Spatial Planning was launched with an initial intake of 18 students.

The UNZA postgraduate programme will do much more than increasing the number of graduate planners and reducing the need for Zambian planners to study overseas. It will provide an education focussed on the realities of rapid urbanisation and informal development and is intended to produce graduates with the ethical perspective and skill base to work with those communities, transforming how planning is undertaken in Zambia and will make its contribution to social and economic development.

The programme is characterised by two distinct and innovative features compared to more traditional courses in planning education. First, the central role of practical project work, both in the studios and in the field providing the context to much of the theoretical teaching entailing close interaction with the various actors involved in the development of land. Second, the introduction of five cross cutting themes which are viewed as essential to planning in modern day Africa and which are introduced and reinforced in different parts of the programme. These five themes are: access to land; actor collaboration; climate change and sustainability; informality, and spatial planning; and infrastructure.

Much of the project work is undertaken for and with informal settlements and closely involves the communities as the client. The central role of representatives of informal settlements has been formalised through an MoU signed in 2013 between UNZA and Peoples' Process on Housing and Poverty in Zambia (PPHPZ), the Zambian branch of Shack/Slum Dwellers International (SDI). They are centrally involved in studio projects both as the client, and also contributing to the teaching programme with insights into the operation of the informal housing market and informal economy. A project on the Kalikiliki informal settlement in Lusaka provided the focus for the local planning studio project (Figs. 22.12 and 22.13).

The project had a significant impact on the student group. As the class representative, who is also the Director of Planning for Livingstone City, commented;

Fig. 22.12 Residents of Kalikiliki in UNZA planning studio

Fig. 22.13 Presentation of proposed Kalikiliki upgrading plan

'The project in Kalikiliki gave us an opportunity to genuinely engage with informality. We have always considered the issue of informality as peripheral to our daily planning work. The Kalikiliki project thus provided a new lens to examine the relationship between informality and urban planning in Zambia. The studio gave us an opportunity to examine our planning values and ethics. Informality is here to stay and as planners we need to look for a way to work with our people in the streets and in informal settlements' (SDI 2014).

An insight into the way in which teaching is undertaken in the new planning programme and on the planning issues in Lusaka is provided in a YouTube video compiled by AAPS Coordinator Nancy Odendaal following the visit of representatives of AAPS to Lusaka in May 2014. http://www.youtube.com/watch?v=nhHpGCnjaiQ.

The new degree programme at UNZA has the potential for developing a group of planners with the ethical perspective and practical skills to reassert town planning's relevance and contribution to present-day urbanisation in Zambia, answering the challenges set out in the publication by the joint chairs of AAPS in their recent publication 'Who will plan Africa's Cities? (Watson and Agbola 2013).

22.5.1 Impacts of the VSO Programme

What impacts have the VSO programme delivered and has it been cost effective? It was expected that the VSO planning programme would be closely linked to a radical overhaul of planning and governance in Zambia. However, due to delays in government approval of new planning legislation and decentralisation proposals this has yet to happen. VSO planners needed to be adaptable, individually and jointly, responding to needs and pursuing opportunities to build local capacity.

On the ground: Although the direct impact of the programme was intended to be on local planners, there have also been tangible benefits on the ground through a variety of projects, particularly relating to settlement upgrading and waste disposal. One of the greatest impacts has been through mapping—helping identify what is presently on the ground. VSO planners often working closely with GIZ German experts have used GIS to produce base maps for planning and initiate geospatial data bases.

On the planning system: As well as providing 'on the job' training, VSO planners have prepared guidance notes and toolkits on the preparation of Integrated Development Plans and local area plans and an urban design guide for Zambia. Each have been endorsed by the Ministry and circulated to planning authorities in Zambia. Documentation such as this has enabled local planners and incoming VSO volunteers to use and build upon this, extending the impact of the VSO programmes.

On Zambian planners and the planning profession: The Zambian planners who have worked closely with VSO volunteers claim to have benefited greatly and have been able to pass on knowledge acquired to other colleagues. This of course is still

only a small number of individuals. VSO planners have also played a role in facilitating the reconstitution of the Zambian Institute of Planners and proposed a website for planning and planners in Zambia to extend the availability of information.

On planning education: Through VSO's facilitation and practical involvement, a major breakthrough has been achieved in planning education with the new master's programme at UNZA piloting a pro-poor, and informality focused degree. Graduates from this programme should make a major impact on how planning is viewed in Zambia enabling planners to play a positive role in working with the realities of informality.

On international volunteer planners: All the VSO volunteer planners from whichever country agrees that working in Zambia was a positive and in many cases life changing experience and rewarding. Exposure to a very different planning environment in Zambia forced them to challenge their own ethics and views on planning which many believe will assist them be better planners (Jukes 2013).

Cost effectiveness: By comparison to other aid interventions supporting capacity building undertaken by consultants funded by national or international organisations, VSO's programme in Zambia is very low cost. The total cost of VSO's programme to date covering 20 planner volunteers in Zambia is estimated at US $250,000. This is the same cost as an individual IDP commissioned from consultants by MLGH and just 5 % of the US$5m paid to Japanese consultants for the comprehensive development plan for Lusaka in 2009 funded by Japanese aid agency JICA.

22.6 Conclusions

Given that the new planning legislation and decentralisation of planning functions the VSO volunteer programme was intended to support have been delayed and are yet to be implemented. It is not surprising that VSO has not met all its original targets. Nonetheless a significant contribution to building planning capacity in Zambia has been achieved both through on the job training, and with the establishment of the new UNZA degree programme. A cohort of Zambian planners are now better equipped to deliver the expectations of new planning legislation and to train staff in district councils. Zambian planning is now recognising it must align itself with tackling the country's urban problems, working with the informal sector rather than perpetuating colonial practices with blinkered planning focused just on the formal sector.

With the notable exception of GIS, the knowledge and skills transferred from VSO planners to local staff have not related to sophisticated planning techniques but rather clear approaches to problem solving, actor involvement and forward planning. Use of simple and streamlined procedures to gather relevant information, identification of key issues, assessment of options, take decisions and ensure policies are also implemented. Essentially the holistic and inclusive approach to

survey-analysis-plan for community renewal and city planning pioneered by the father of modern town planning Sir Patrick Geddes in both Scotland and India a century ago.

References

AAPS. (2010). *Revitalising Planning Education in Africa*, Association of African Planning Schools, Dar-es-Salaam, October 2010.

Cockhead, P. (2009). Voluntary experience in Zambia, In: *Scottish Planner*, October.

Fox, M. (2014). *A Letter from Kabwe: The experience of an urban planning adviser in Zambia* on Zambian Planning Network.

Hansen, K. (1997). *Keeping Housing in Lusaka*. New York: Columbia University Press.

HIFAB. (2008). *Discussion Document for the Preparation of the Urban and Regional Planning Bill*. Lusaka: Ministry of Local Government and Housing, Zambian Government.

Jukes, G. (2013). *Planning in Zambia*, Presentation to Town and Country Planning Summer School, Leeds University, September 2013.

MLGH. (2012). *Draft Guidance on preparing Integrated Development Plans, April 2012*. Lusaka: Ministry of Local Government and Housing, Zambian Government.

MLGH. (2014). *Draft Urban Design Handbook*, March 2014, Ministry of Local Government and Housing, Zambian Government, Lusaka.

Mulenga, C. (2003). The Case of Lusaka, Zambia. In: *Understanding slums: Case studies for the global report on human settlements.*

Mwimba, C. (2002). *The colonial legacy of town planning in Zambia*. Paper to South African Planning Institute Conference '*Planning Africa 2002'*. Durban.

Mwimba, C. (2006). *We will develop without urban planning. How Zambia's urban planning practice is removing value from the development process*, Paper to South African Planning Institute Conference '*Planning Africa 2006'*, Cape Town.

Phiri, D. (2008). *Copperbelt University Zambia, Department of Urban and Regional Planning*. Association of African Planning Schools series on Planning Schools.

SDI (Shack/Slum Dwellers International). (2014). *Shaping Human Settlements through Partnerships between Slum Dwellers and Academia*, SDI Blog, 2 May 2014.

United Nations. (2013). *World Population Prospects: The 2012 Revision, Highlights and Advance Tables*, Department of Economic and Social Affairs, Population Division Working Paper No. ESA/P/WP.228.

UN-Habitat. (2009). *Zambia: National Urban Profile*, UN-Habitat, Nairobi.

UN-Habitat. (2012). *Zambia Urban Housing Sector Profile*, UN-Habitat, Nairobi.

VSO. (2011). *People First: VSO Strategy*, London.

VSO. (2014). *Annual Report and Financial Statements*, London.

Watson, V., & Odendaal, N. (2012). Changing planning education in Africa: The role of the Association of African Planning Schools. *Journal of Planning Education and Research, 3*(1), 96–107.

Watson, V., & Agbola, B. (2013). *Who will plan Africa's cities?* African Research Institute Counterpoints Series.

World Bank. (2014). *Zambia overview*. Retrieved October 10, 2014, from www.worldbank.org

Part V
Conclusion

Chapter 23
Conclusions: The Future of Planning Education in India

Ashok Kumar

Abstract The future of planning education is only partly located in planning schools where the students are provided with education and instruction apart from self-learning. The future of planning education would increasingly depend on other sites such as local communities, which produce planning knowledges, and are the object of research for planning faculty and the students. Government of India, state governments, local governments and global players would equally play a significant part in impacting planning education. This chapter explores three such areas, which could play pivotal role in transforming planning education in India. These broad areas deal with the subject matter of quality of planning faculty, critical reasoning against popular narratives and purposes of planning.

Keywords Planning education · Critical reasoning · Multiplicity of knowledges · Purposes of planning · Popular discourses

23.1 Introduction

A number of significant issues have been raised in the book. First, the production of inadequate number of planners in comparison to their requirement in the context of increasing number and size of cities and towns in India has been highlighted by several authors. Additionally, it is argued that demand for planners is likely to also increase because implementation of 73rd and 74th amendments to the Constitution of India devolving powers to local governments would require more number of planners. Second, heavy reliance on instrumental reason, misrecognition and complete exclusion of other forms of knowledges have been made an important concern in many chapters. This also explains the centrality of scientific rationalism in planning education throughout the country. Third, an entire section of the book is

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devoted to the question of ethics in planning. It is argued that learning about planning ethics is much more than getting acquainted with different codes of conduct. It is contended that planning schools should teach ethics through experiential learning and case study method. This connects very well with the idea of multiplicity of planning knowledges because all praxis and experiences are also expected to generate unique knowledges. A number of other crucial points about the current state of planning education in the country has been made by a galaxy of authors. My purpose in this chapter is not to summarize findings of each chapter but to gaze into the future, which I imagine, is uncertain, fluid, uncontrollable, and yet I believe that we must attempt to make it better particularly for the education of planning by taking important steps today.

In this chapter therefore I particularly select three areas for discussion, which I tend to think are critically crucial to planning education in India, if it has to make any impact whatever for making cities and towns better than what they are today.

23.2 Quality of Planning Faculty

Notwithstanding the fact that various organizations such as the University Grants Commission and All India Council for Technical Education both under the Ministry of Human Resource Development, offer quality improvement programmes, quality of planning faculty has not significantly improved. It is true that there are no explicit criteria to judge quality of the planning faculty, and this itself is an obstacle in improving quality of teachers in planning schools. Second, the conditions laid out for the promotion of faculty are explicit enough but appear to be inadequate to assess quality of teachers. For example, scores based on publications in refereed journals are so low that without really improving research capabilities, a faculty can easily move from one level to the other. Similarly, faculty is required to attend seminars and conferences and marks are awarded for presenting papers in these national and international academic events. However, there are no mechanisms and processes put in place to ascertain how presentations of such papers in conferences and seminars have contributed to the enhancement of academic learning and research capabilities of teachers. Rules even permit that a faculty could attend these events without making any paper presentation. Third, after faculty gets recruited to a planning school, let us say with a doctoral degree, there is no compulsion on her to learn more and acquire new knowledge in order to continue with her job. After the short probation period of 1 year is over, an automatic route is charted, which is highly bureaucratic, for moving from the position of assistant professor to senior professor. There is almost no link between academic achievement and excellence, and career promotion. I believe that severing of links between excellence and promotion has greatly harmed the planning academy in India.

Fourth, planning faculty does not promote links with local communities for whom planning schools arguably produce future planners. In the western planning schools, interactions with local communities and presentations of the students'

works to local communities are a norm and accepted planning practice. Planning faculty in India, however, keeps losing opportunities of mutually beneficial interactions with state governments as well as central government. For example, in 2015 Government of India decided that each Member of Parliament will adopt a village and make that village, a model village. Planning faculty could have easily moved in and supported Government of India for planning and implementation of this programme. But it appears most of the faculty of planning is busy in doing armchair theorizing. Fifth, participation of the planning faculty in public planning policy framing is very thin. This may be happening because we are not producing credible research in planning schools that should compel politicians and senior planning practitioners to seek advice from us. Self-perpetuated vicious circle of exclusion disbenefitting planning schools and planning faculty has thus been completed.

Sixth, there are no provisions for periodic reassessment of planning faculty once they have successfully graduated from a planning school. Planning faculty does not have to undergo any compulsory examinations and tests. Educators, once educated, remain educated for life, even if we do not produce a single paper for a refereed journal and complete single project worth its name. Seventh, although entry into academics has been made stringent by government by making doctoral degree as a compulsory qualification for recruitment to senior faculty positions, yet quality of doctoral research has proportionately gone down. Primary reason for this downward spiral of quality of planning faculty is that innovative research topics are neither chosen by doctoral students nor encouraged by planning faculty. There are a number of other points that could be made, but this is the time to ask that important question: what is to be done?

Planning education in India has become very visible as the public and political discourse has moved from the rural to the urban. This relatively greater policy emphasis on the urban is expected to shape, or perhaps already have begun shaping, planning education. I understand that this should be treated as an opportune moment for planning schools to have a relook at how we are organized as an institution. This relook should result in the complete reorganization of planning schools by focusing on the following aspects as far as quality of the planning faculty is concerned.

- Educational qualifications and experience of planning faculty is critical to improving their future quality. This has to be ensured at the entry level. Like in IITs, planning schools should not allow any person to become a faculty member without a doctoral degree from a top planning school or university. For pressing teaching assignments, well qualified young planners could be hired for a limited period on purely contractual basis who would teach in the junior classes. There is no reason to automatically promote these ad hoc teachers to the status of regular faculty. These young planners would also compete in the open market once positions are advertised for regular faculty positions. Initially they may be called teaching assistants. A great care should be taken by authorities in planning schools that regular faculty gets appointed in a time bound manner. Rules may be framed to provide that at no point in time more than 10 % of faculty

positions will remain vacant. This rule should be strictly implemented with full accountability provisions added in case of non-compliance of this rule by authorities in planning schools.

- Clear criteria with identified parameters for assessing enhanced quality of teaching and research should be framed by Government of India, and all planning schools should be made aware of such criteria. Once this is done, all regular faculty should be held responsible for non-performance resulting in absence of promotions. Promotion and excellence should be made natural bedfellows. Measurement of planning research should be made highly explicit in terms of its contribution to society, more particularly to those sections of society who are vulnerable and whose voices generally remain unheard. In this particular sense, the most valued knowledge is the one which 'plays an important role in the empowerment of the urban poor, both within these communities and with regard to their dealing with local and national states and with local and global funders' (Appadurai 2012, p. 639). However, knowledge that makes great contribution to industry and economic growth should be treated equally valuable for movement to higher teaching positions in planning schools. At the present moment new knowledge is being created at a very slow speed, and whatever is produced in planning schools under the name of planning research is not very impactful.
- Planning schools have long relied on scientifically accumulated knowledge and developed the paradigm known as 'scientific rationalism' with the hope that urban and regional planning could be turned into some kind of science subject with enhanced respectability as happens with all science disciplines. My suggestion is that planners and planning schools should give up on the idea of making planning a discipline dealing with science subjects. To be sure, science alone cannot build 'creative, livable and sustainable cities' as Government of India wants them to be. Apart from scientific knowledge, there are a number of other forms of knowledge and they emanate from diverse sources of knowledge. No one form of knowledge and on one source of knowledge is adequate for building equitable and peaceful cities anywhere on this earth including India. Local and global equity resulting in sustainable peace is the crucible of livable city. As nature and purposes of knowledge creation is imperative, diversity of knowledges and diversity of knowledge sources are equally important for producing quality planning faculty. Planning schools, for example, are not the sole repositories planning knowledge even if they are capable of producing a diversity of knowledges; knowledges could be produced by local communities about themselves and also about others. For example, a sustained partnership between SPARC, NSDF and Mahila Milan has shown that through self-enumeration and mapping, self-designed housing exhibitions, and self-crafted toilet festivals, knowledge, indeed useful knowledge, can be produced by local communities. Planning faculty and planning students can greatly benefit from such knowledges for effectively learning about public planning policies. So far such links between Indian planning schools and local communities remain non-existent apart from occasional ritualistic visits to slum communities for producing research papers.

Local knowledge or knowledge produced by those who have firsthand experience can improve planning in four distinct ways. These include 'epistemology, adding to the knowledge base of environmental policy; procedural democracy, including new and previously silenced voices; effectiveness, providing low-cost policy solutions; and distributive justice, highlighting inequitable distributions of environmental burdens (Corburn 2003, pp. 427–430). Diversity and multiplicity is at the heart of quality education and quality teaching.

- At the present moment most of the faculty in planning schools is drawn from academic institutions without relevant field experience. This is unhelpful for planning schools generally and planning students particularly. Planning faculty with considerable field experience in planning authorities or in applied research institutions will add to quality of teaching and learning. A mix of faculty drawn from planning schools and planning practice would enhance overall quality of instruction and research. Visiting faculty hurriedly coming from planning organizations to teach a theory subject or a studio is no replacement for having a regular faculty with good number of years of practical experience.
- Research in any discipline is not for free. Credible, reliable and trustworthy research requires large amounts of government and private funding. Private funding may not be easily forthcoming because its results could not be deployed in the short run to accumulate wealth. Only public funding has to be made available for producing new knowledges in planning. Some funding has been made available by Ministry of Human Resource Development under its programme called the National Initiative for Design Innovation for setting up Design Innovation Centers. Presently this is being coordinated by IIT Kharagpur, West Bengal. All three SPAs are involved in this initiative. But it would be better if exclusive funding for planning schools located throughout the country is made available without stringent preconditions. The only condition that government should impose is that researchers are committed to producing reliable new knowledges in a reasonable time period. Another problem that even committed planning faculty who enjoy researching and producing new knowledges is that planning libraries are ill-equipped with academic journals and books. As journals and books become expensive, limited budgets are exhausted before planning schools could purchase all that they want. However, this problem has a solution, which is already being implemented by a consortium of government academic institutions. Similar arrangements should be worked out by the planning schools where they could pool their resources to procure e-books and e-journals. To widen their net, planning schools can also tap into large university libraries which have electronically subscribed to journals and books related with sister subjects such as social sciences and engineering. It would be instructive for planning schools to remember what T.S. Eliot famously said: 'The very existence of libraries affords the best evidence that we may yet have hope for the future of man'.
- In some western countries like the UK, there is a long tradition of commissioning planning research, which could be used for policy framing. This western

tradition is worth emulating as it is mutually beneficial to government as well as the planning faculty. Faculty would benefit from their involvement in practical situations that they must confront in order to carry out empirical research for government's planning agencies. Government planning agencies would also reap benefits in the form of evidence-based policies. Whatever may be the ideology of a government, evidence-based policy should be preferred over heresy because evidence-based research would 'produce reliable, unbiased, and meaningful information on the strength of evidence behind each program' (Slavin 2008, p. 5). Results of evidence-based research could be used for policy development, programme evaluation and programme improvement (Head 2008). Thus, we can start building evidence-based practice which 'suggests a greater appreciation for the idea that planning policy and practice could be based on research evidence as well as other sorts of knowledge and information' (Krizek et al. 2009, p. 474). Once commissioning of evidence-based research becomes a tradition, planning faculty would have reason to produce new and useful knowledges for making Indian cities and regions creative, livable, economically buoyant and environmentally sustainable.

23.3 Reasoning Against Popular Discourses

Institute of Town Planners, India organized its Thirty-First National Town and Country Planning Seminar on the subject of 'Physical Planning Inputs and Planning Education for the New 20-Point Program'. The seminar was inaugurated by N.D. Tiwari, then central Minister for Industry. In his wide ranging address he noted that the New Twenty Point Program was a comprehensive package of result-oriented activities intended to provide accelerated thrust to economic development for uplifting the quality of life of people, particularly vulnerable sections of the society. It was in this seminar that a recommendation was made to initiate an undergraduate planning programme in town and country planning with 4 year duration. The ITPI was asked to work out a model curriculum and syllabus for the consideration of the then Ministry of Education. No reasons were offered for starting an undergraduate programme in planning. However, over a period of time, a number of reasons have been mentioned by educators, practitioners and the ITPI authorities. This narrative is taking certain shape, which I want to critically dispute.

A number of reasons have been stated by educators and practitioners narrating diverse stories about the commencement of Bachelor of Planning programme and the establishment of the Department of Physical Planning. Muddled identity of the planning field has been found to be one of the major concerns of academicians and practitioners as graduating students who named themselves as planners with a number prefixes based on their earlier educational qualifications. Some educators, particularly those coming from the discipline of architecture, use this idea of blurred identity of the planning discipline to take an unhelpful swipe at planners with

educational qualifications in the social sciences and engineering disciplines. Most quoted reason for starting an undergraduate programme in SPA New Delhi is that the new course would obliterate the caste system among planners. It was expected that these students would be produced as generalist planners graduating after learning the planning skills for four years. As they would have no other graduate degree other than planning, they would slowly but surely produce identity for the planning profession. These generalist planners will not use any prefixes and the divisive caste system that existed in the planning field for more than half a century will become non-extent. Here underlying assumption is that India will be flooded with generalist planners in a short span of time and planning education at post-graduate level will become outdated and extinct. This fact is implied and never made explicit, and very little is done by planning educators and practitioners to widen undergraduate planning education throughout the country. However, two opportunities presented themselves for starting more undergraduate planning programmes through establishment of new SPAs in the country. One opportunity presented itself and consequently resulted in the establishment of SPA Bhopal and SPA Vijayawada. Another opportunity presented itself in 2014 for setting up more new SPAs throughout the country. Both opportunities were created for planning schools by Ministry of Human Resource Development, Government of India rather than academics and planning practitioners themselves. Educators and practitioners have simply assisted government in setting up new planning institutions. Leading a movement to assert the relevance of undergraduate planning programme throughout the country remains a task yet to begin.

I would argue that a reason for setting up undergraduate planning programme was to remove caste system from planning schools is a fallacious argument because caste system never existed at undergraduate level; it only existed at postgraduate level where planning students are even today treated differentially by the students as well as the faculty. Introduction of an undergraduate planning programme has simply added another dimension to the existing caste system at postgraduate level. Now we differentiate and perhaps discriminate among geographers, sociologists, economists, planners, engineers and architects. Teaching faculty with diverse educational qualifications including faculty with social science background differentiate students on the basis of their previous professional qualifications. Second, when we talk about different castes of planners that existed before the start of undergraduate planning programme, we show complete disregard for the complexities embedded in the term caste as we understand it in India. To my mind this could not be a substantive reason for the start of a new undergraduate programme although this reason may have been used as a factor for rationalization to start a new programme. Even if we started a large number of undergraduate programmes throughout the country, the caste system in the fractured planning fraternity, if we can call it a fraternity, at postgraduate level will continue to exist till we continue to admit students in postgraduate planning programmes. If undergraduate planning programme has done anything, it has surely created a generalist planner without any prefix. But at the same time, undergraduate planning programme has also added a new tier to the existing hierarchy of disciplines that become eligible for admission

in postgraduate planning resulting in more rather than less diversity. I believe that this diversity is good for planning provided we adequately broaden the scope of planning and do not attempt to make it a clone of architecture. Acceptance of diversity of disciplines for admission at undergraduate level could help in making the field of planning stronger rather than weaker. It is my view that school leaving students with pure science background are less suitable for an undergraduate planning programme than students with social science background, particularly students with subjects such as geography, economics, sociology, political science with mathematics being a compulsory subject at twelfth standard. Another related point is that the use of word caste in the context of students seeking admission in postgraduate planning programmes with diverse educational qualifications is misplaced and erroneous. World over students with diverse educational qualifications are admitted to postgraduate planning programmes and they complement one another as long as they are planning students. After getting into a practitioners' life they find their own level and niche. No one appears to seek superiority by putting others down. Diversity of disciplines should be regarded as an asset rather than a liability, more so for planning education and even crucially important for planning practitioners in various arenas.

The second reason cited for the establishment of an undergraduate planning programme at SPA New Delhi is that it would unshackle planning from the prevailing dominance of architecture. This issue also related with the identity crisis that planning was facing, and to some extent continues to face even today not only in India but also globally. Even in England where currently identity of planning is comparatively securely established, dominance of architecture and engineering used to be a fact of professional life in the formative years of planning. As Gordon Cherry explicitly stated: "when the subject of town planning emerged, it was viewed very much as a 'supplementary' one which needed to be added to the education of architects and engineers to enable them to be professionals who were able to be interdisciplinary and who could coordinate the skills and knowledge held by the different parent professions of planning" (Cherry 1974 as quoted in Poxon 2001, p. 565). Some critical commentators have called planning as a 'minor profession' (Myers and Banerjee 2005, p. 125). Therefore, in my view dominance of architecture should be viewed fundamentally different. In a world run by competition among disciplines, cousin-disciplines or sister-disciplines would like to protect their turfs. Educators and practitioners on the architecture side were only trying to protect their turf. They faced similar problems of being run down by gatekeepers of other disciplines when architecture was emerging as a discipline in its own right over 100 years ago. Planning will also come of age. Identity crisis in planning should not be presented as a problem; it should be treated as an opportunity and a challenge for looking inwards and outwards for taking planning to greater heights.

Third important reason for starting a new undergraduate programme at SPA New Delhi was that there was a need for more number of planners. Planning practitioners and educators make repeated references to rise in demand for planners as a consequence of the process of devolution of powers initiated by government from states to urban and rural local bodies. This assertion is quantified by pointing at

requirements of preparation of a new set of plans under the 73rd and 74th amendments to the Constitution of India after 1992. Furthermore, rising levels of urbanization is said to require more number of planners. Let us examine how far these arguments can hold water. New set of plans include village development plan, block development plan, district development plan and metropolitan development plan. The fact of the matter is that these are social and economic plans and not spatial plans in which case planners are not statutorily required to prepare these plans. Even if these new plans were to be spatial plans, there is no direct relationship between the requirement of increasing number of plans being prepared and rise in demand for trained planners. In a market centric administrative regime, spatial plans could be prepared through the private sector where efficiency matters most without regard to quality. This means a private company employing a fewer number of planners can do the job easily. Recently Punjab got a number of master plans prepared for its cities through a private company without recruiting a single new planner. If quality of plans prepared by the private sector is controlled, which is entirely possible, rise in demand for more planners will become a highly contentious issue.

However, the demand for undergraduate and postgraduate planners will increase but not because of the impact of 73rd and 74th amendments to the Constitution of India, not because of increasing levels of urbanization, and also not because of increasing geographical size of city populations. Demand for planners will rise for reasons unrelated to these three aspects. Markets generate their own momentum. Successful markets operate in countries where economies and societies present certainty rather than uncertainty and instability. Indian cities, towns and regions are likely to become even bigger economic giants than they are today (McKinsey Global Institute 2012). Markets will penetrate every aspect of our lives. One thing we must remember is that investors will make investments in towns and cities, if they remain stable, peaceful, safe, and places of rule of law. This certainty is enhanced if plans are prepared in time and comprehensively implemented. Of course markets would need more than preparation of plans and their implementation. So demand for planners will rise because cities and towns would act as arenas of investment for the capital, places of accumulation of capital, and not for some assumed and superficial reasons. Not only market aligned reasons are earthly, they could propel widespread acceptance of planners in India and afford much needed identity and respectability to planning as a unique field of study.

External factors that have been affecting the overall demand of planners in the field of planning are presented as a critique of the three rationalizations, where dominance of market would ensure that less rather than more number of planners get employed even if more graduates are churned out by planning schools and universities. Now I turn very briefly to internal factors. Planning in India has few mechanisms to regulate quality of education as well as practice. Institute of Town Planners, India is the only professional body dealing with regulation of planning education. Some control on planning education is also exercised by the AICTE's town planning board. Efforts to prepare a town planning bill in 2014 could not take of the ground. In the absence of any independent statutory regulatory framework,

even if demand for planners increases over a period of time, it could be safely assumed that some of these positions will be filled by other professionals including architects and engineers who, apart from doing planning jobs, could also perform additional design tasks. Therefore, I propose that we have a fresh look at the internal mechanisms of planning field and recommend to government that an independent statutory regulator is set up through a town planning act passed by the Indian Parliament.

23.4 Purposes of Planning Education

Educating school leaving youngsters about planning skills, values, ethics, theories and methodologies cannot be done without recourse to clearly spelling out ends that educators, practitioners and governments want to achieve. This would seem like instrumental rationality where ends are determined in advance of determination of means to attain pre-decided goals. This may be so but it appears to me appropriate for talking about purposes of higher education including planning education at the undergraduate level. It also appears to me appropriate because multiple rationalities are advocated by multiple interest groups and theorists, one claiming superiority over the other as multiplicity of rationalities is prevalent in planning practice (see Watson 2003, 2006). Generally these competing and conflicting rationalities are presented as impartial arguments by hegemonic interest groups; they are made to appear as arguments are arrived at through technical reasoning alone. I would like to dispute this notion of impartiality when talking about purposes of planning. Planning education being regulated by government, and planning practice being governed by government, it would be foolhardy to assume that both education and practice are impartial endeavours. Among others, this has been most profoundly established by David Harvey through his scholarly writings over the last five decades (see Harvey 1978, p. 213).

In order to arrive at some generic purposes of planning, it is important that diverse views expressed about purposes of education and higher education is first examined. It is to this task that I now turn. Several thinkers have articulated purposes of education including higher education. For instance, the Marxian understanding of education is that it is an instrument of reproduction of social relations in the capitalist society. Professionals are produced and reproduced in order to be used for creating more and more capital by subordinating their labour power to the interests of capital classes. As Karl Marx famously wrote:

> A spider conducts operations that resemble those of a weaver, and a bee puts to shame many an architect in the construction of her cells. But what distinguishes the worst architect from the best of bees is this, that the architect raises his structure in imagination before he erects it in reality. At the end of every labour-process, we get a result that already existed in the imagination of the labourer at its commencement. He not only effects a change of form in the material on which he works, but he also realises a purpose of his own that gives the law to his *modus operandi*, and to which he must subordinate his will (Marx 1990, p. 284).

Here the word 'architect' is metaphorically used to discuss the place of workers including professional workers like planners in a capitalist society. 'At the heart of Marx's critical sensibility lies the idea that human beings can all too easily fall prisoner to their own products and projects, to say nothing of their false mental conceptions of the world' (Harvey 2010, p. 115). Labouring is this compared to imprisoning one's being where commodities predominate the human essence.

Based on a utilitarian calculus, neoliberals seek to profit from higher education. Knowledge itself is seen as 'the new form of capital under neoliberalism' (Olssen and Peters 2005, p. 330). Investment in creating new knowledge is regarded similar to investment in a business or industry. Critical inquiry and debate is replaced with tangible and measurable outputs. For neoliberals 'higher education has become the new star ship in the policy fleet for governments around the world' (Olssen and Peters 2005, p. 313). 'One of the major objectives of the reforms in higher education has been to instal relations of competition as a way of increasing productivity, accountability and control' (Olssen and Peters 2005, p. 326). Neoliberals believe that markets alone can efficiently allocate resources. Any other way of distributing resources would result in inefficient ways of allocating resources, which would result in their wasteful use.

Beyond these two extremes, a number of other useful ideas are presented. For example, Ronald Barnett argues that: 'A genuine higher learning is subversive in the sense of subverting the student's taken-for-granted world, including the world of endeavour, scholarship, calculation or creativity, into which he or she has been initiated. A genuine higher education is unsettling; it is not meant to be a cosy experience. It is disturbing because, ultimately, the student comes to see that things could always be other than they are. A higher education experience is not complete unless the student realizes that, no matter how much effort is put in, or how much library research, there are no final answers' (Barnett 1990, p. 155). Constant questioning and a desire for critical inquiry are inseparable. Planning studios are greatly suited to cultivating desires of critical inquiry if these are backed up by profound understanding of theories and methodologies. In Indian planning schools, it seems to me, there is a great aversion to theory in the field of planning. Theory learning is largely regarded as a waste of time and resources, and this idea is getting increasing acceptability in planning schools after the globalization of Indian economy in 1990s. Some faculty are so willing and eager to get on to this bandwagon that they easily concede even their minimum educating rights to neoliberal policy university. Need for acceptance, fear of rejection and reprisals overwhelm these planning academicians. In undergraduate planning programme, it is additionally argued that young students cannot be bothered with a lot of complex planning theory because that requires a mature mind, which only gets developed at postgraduate level. Forgetting entirely what Vasili Davydov, a noted psychologist, said in an interview:

> Our first-graders master the concepts of equality and inequality expressed in letters by the third month of school, while they are still unable to handle numbers. The mathematics course is based on the idea of relationship, from which emerges the concept of "value" and then its particular instance, "number". To encourage schoolchildren toward a mode of

> theoretical thinking that makes it possible to go from the general picture to its details, to grasp the whole before its individual parts – this is the method of teaching that fosters the kind of thinking necessary for our times. Such education is based on the psychological ideas focused on the mechanisms of search, goal orientation and action, as I have said earlier (Davydov 1982).

Planning is an important function of the state, and is concerned with the regulation of land and built environment by various institutions and individuals. Planning is majorly concerned with preparation of development plans, production of built environment and regulation and control of development. While a focus on land uses, built environment, development plans is crucial, it should also be considered that planning is much more complex as Lefebvre (1991) points out that 'production and use of space is deeply embedded in the socio-political landscapes of a society' (Davoudi and Strange 2009, p. 9). A critical understanding of these social and political processes is significant for the realization of planning purposes.

From the above discussion, purposes of planning education could be imagined broadly in two ways. One, we could view planning schools as factories producing planning graduates whose skills and competencies perfectly match with the requirements of planning organizations run by government, private sector and voluntary sector. Some authors firmly believe in this instrumental notion of education. As Jacqueline D. Guzzetta and Scott A. Bollens argue that conformance of planning education with planning practice would enhance relevance of planning to society:

> Our perspective is that planning education should and will increase its relevancy and value to the extent that we enhance our understanding of the skills that professionals in planning or planning-related jobs feel are most important to their current position and future advancement (Guzzetta and Bollens 2003, p. 97).

Alternatively we could think of the role of planning in society independent of planning practice or even in opposition to what may be taking place in planning agencies. Here the belief is that 'As an institution of civil society, the university has a mission. Not only is it responsible for educating students to deal with the changes taking place in society, it is also responsible for helping to determine the form that society will take' (de Jong and Teekens 2003). This makes planners as change agents and places huge responsibility on the shoulders of planners. To determine the form that society might take, it is important to specify the ethical and moral principles on the basis of which curriculum changes could be brought about and teaching methods could be determined. It is expected that once outlined these planning ethics should direct the contents of a curriculum generally and core competencies particularly.

Specifically for city planning, Manuel Castells have outlined four broad concerns of planning. These are 'environmental sustainability', 'planning for urban and metropolitan infrastructure', 'reconstruction of cultural meaning in spatial forms and processes' and 'the shift towards local and regional governments as decisive instances of governance, management, participation and representation' (Castells 1998, pp. 27–28). But, he does not say anything on how these interventions would pave the way for development of planning ethics or moralities shaping planning objectives.

Friedmann (1996, p. 96) outlines the mission statement of the University of British Columbia's School of Community and Regional Planning outlines, where the following domains of planning are highlighted:

> … exploring the meaning of sustainable development and discovering global and local paths towards its achievement.
>
> … understanding the relationships among the many variables that affect the development and use of our natural resources and built environment: social, economic, biophysical, institutional, aesthetics, cultural …. To use … knowledge to advance an integrated approach to planning and development.
>
> … the necessity for strategic thought and action. This requires planners who can identify a range of currently feasible options that take into account relationships and consequences over the long-term.
>
> … to be effective at a local scale in communities and regions where people live and work …. This requires planners who are both visionary and practical.
>
> … the need to act professionally. This requires several kinds of competence: technical knowledge and skills; an ability to communicate, to provide leadership skills in participatory planning, and to work with others in complex organizational settings; and sound judgment and the willingness to take responsibility.

Chettiparamb (2006, pp. 189–190) in her review of literature shows planners could acquire two sets of planning skills: personal skills (conversation, listening, intuition, learning by doing, tolerance and respect for others) and knowledge-based skills, the skills that can be acquired in a planning university. She also does not connect with some overarching planning purposes.

I see planning schools and universities as places of educating youngsters for certain societal ends. The first and foremost purpose of planning education is to train students in the arduous task of making moral places, places full of diversity of enforcing intersubjective solidarity, places of harmony, places of equality and fairness, places of understanding, places of jubilation and celebrations and places where citizens could realize their being by pursuing whatever vocation and profession they like. David Smith classifies places into two categories, i.e. places of exclusion and places of care (Smith 2007). Places of exclusion are those places where conscious attempts are made to keep a group of people, on whatever basis it is identified, out of certain bounded place occupied by another distinct social group. The other is feared and treated as a stranger who could disrupt normal life of a community.

Following Smith (2007) I would like to argue that the basic purpose of planning should be to create 'places of care' where places are imagined to have therapeutic qualities. According to Gesler (1993, p. 171) therapeutic places have 'an enduring reputation for achieving physical, mental, and spiritual healing'. Creation of such places would result not only in complete transformation of planning purposes, but entire focus of planning would be shifted towards creating places with healing qualities. Here "the goal should be to create environments that are conducive to various types of healing, including physical, mental, emotional, spiritual … different types of healing can lead to synergies that increase the overall therapeutic atmosphere of a place" (Gesler 2003, p. 112 as quoted in Smith 2007, pp. 12–13).

23.5 Conclusions

We have come full circle. T.S. Eliot would remind us: 'And to make an end is to make a beginning. The end is where we start from'. Making moral places is that end where we should start from. Caring places are inclusionary and non-violent. Caring places are healthy and non-polluting. Caring places are full of life and energy. If the students were to be trained for creating caring places, they should be trained for producing peaceful places. Planning schools should focus, firstly, on training students to innovate along with local communities so that the dreadful practice of open defecation is eliminated from Indian towns and cities by providing innovation and affordable but quality sanitation facilities to all. Presently planning faculty and planning students do not treat the subject of open defecation even as a part of planning education. In practice, master plans do not mention open defecation because for planning agencies sanitation means laying out modern sewerage system. Second, planning schools should educate students about safety of citizens at all times and in all places. Women, children and the old would feel safe in caring places as these places are created to prevent crimes and hostilities. Safety concerns also relate to better basic health facilities. Availability of dispensary, its appropriate location, and the quality of service in a dispensary should remain the great concern to planners. Third, schools for kids are caring places, and planners along with communities and policy makers should ensure that government schools meet world class spatial standards of basic education. The present planning education system is incapable of training planning students for caring school spaces. Planning students are taught to remain fixed on locational aspects of schools and this alone would not be able to provide caring schools. If planning education were to succeed in India, and India were to fulfil her desire of becoming a world leader, all Indian citizens must have access to decent housing. This is possible if planning schools along with government policy makers decide to impart relevant training to planning students about inclusive economic development. Slums and world aspirations cannot go together and to see this we only need to look at the current world leaders. Planning schools are not only in the business of producing planners, they must also produce planners with relevant skills that benefit the last man standing.

References

Appadurai, A. (2012). Why enumeration counts. *Environment and Urbanization, 24*(2), 639–641.

Barnett, R. (1990). *The idea of higher education*. Buckingham: Open University Press and SRHE.

Castells, M. (1998). The education of city planners in the information age. *Berkeley Planning Journal, 12*, 25–31.

Cherry, G. (1974). *The evolution of british town planning*. London: Leonard Hill.

Chettiparamb, A. (2006). Bottom-up planning and the future of planning education in India. *Journal of Planning Education and Research, 26*, 185–194.

Corburn, J. (2003). Bringing local knowledge into environmental decision making: Improving urban planning for communities at risk. *Journal of Planning Education and Research, 22*, 420–433.

Davoudi, S., & Strange, I. (2009). Space and place in twentieth-century planning, an analytical framework and an historical review. In S. Davoudi & I. Strange (Eds.), *Connections of space and place in strategic spatial planning*. London: Routledge.

Davydov, V. (1982). *Much Learning does Not Teach Understanding*, (A Conversation with Vasili Davydov), First published by Progress Publishers in "One Is Not Born a Personality", Profiles of Soviet Education Psychologists, Moscow.

de Jong, H., & Teekens, H. (2003). The case of the university of Twente: Internationalization as education policy. *Journal of Studies in International Education, 7*, 41–51.

Friedmann, J. (1996). The core curriculum in planning revisited. *Journal of Studies in International Education, 15*, 89–104.

Gesler, W. M. (1993). Therapeutic landscapes: Theory and a case study of Epidauros, Greece. *Environment and Planning D: Society and Space, 11*, 171–189.

Gesler, W. M. (2003). *Healing Places*. Lanham, MD: Rowman and Littlefield.

Guzzetta, J. D., & Bollens, S. A. (2003). Urban planners' skills and competencies, are we different from other professionals? Does context matter? Do we evolve? *Journal of Planning Education and Research, 23*, 96–106.

Harvey, D. (2010). *A companion to marx's capital*. London: Verso.

Harvey, D. (1978). On planning the ideology of planning. In: J. Burchall (ed.), *Planning theory in the 1980s: A search for Future Directions*. New Brunswick, NJ.

Head, B. W. (2008). Three lenses of evidence-based policy. *The Australian Journal of Public Administration, 67*(1), 1–11.

Krizek, K., Forsyth, A., & Slotterback, C. S. (2009). Is there a role for evidence-based practice in urban planning and policy? *Planning Theory and Practice, 10*(4), 459–478.

Lefebvre, H. (1991). *The production of space, translation by N*. Blackwell, Oxford: Donaldson-Smith.

Marx, K. (1990). *Capital: A critique of political economy* (Vol. I). Penguin Classics, London: Translated by Ben Fowkes.

McKinsey Global Institute. (2012). *Urban world: Cities and the rise of the consuming class*. London.

Myers, D., & Banerjee, T. (2005). Towards greater heights for planning, reconciling the differences between profession, practice and academic field. *Journal of the American Planning Association, 71*(2), 121–129.

Olssen, M., & Peters, M. A. (2005). Neoliberalism, higher education and the knowledge economy: from the free market to knowledge capitalism. *Journal of Education Policy, 20*(3), 313–345.

Poxon, J. (2001). Shaping the planning profession of the future: The role of planning education. *Environment and Planning B: Planning and Design, 28*, 563–580.

Slavin, R. E. (2008). What Works? *Issues in Synthesizing Educational Program Evaluations, Educational Researcher, 37*(1), 5–14.

Smith, D. M. (2007). Moral aspects of place. *Planning Theory, 6*(1), 7–15.

Watson, V. (2003). Conflicting rationalities: Implications for planning theory and ethics. *Planning Theory and Practice, 4*, 395–408.

Watson, V. (2006). Deep difference: Diversity, planning and ethics. *Planning Theory, 5*, 31–50.