

A Systemic Indicators Framework for Sustainable Rural Community Development

Phuong T. Nguyen^{1,2} · Sam Wells¹ · Nam Nguyen^{1,3}

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Abstract Community indicators have been of special interest to scholars worldwide, because of their vital role in community development. Nevertheless, the best way to identify indicators is still unclear, especially for rural communities in developing countries where the complexity of rural systems give rise to special challenges. Following conceptual and empirical stages of the development of a systemic framework for identifying indicators for rural community in developing countries, our participatory action research moves to critical reflection, undertaken with the participants in the original fieldwork. This paper discusses findings from that reflection, in workshops and in-depth interviews, considered, also, in the context of our experiences in the previous stages of research. It finds that the positive impact of the framework was reflected in increases to the communities' human and social capital, although several weaknesses in the framework implementation were also revealed. This paper introduces reflection-based improvement to the framework and also discusses a set of principles as a foundation for implementing the framework in rural settings in developing economies.

Keywords Community indicators · Living systems · Rural community development · Sustainable development · Systemic indicators

✉ Phuong T. Nguyen
nguyenkhanhphuong.vn@gmail.com

Sam Wells
sam.wells@adelaide.edu.au

Nam Nguyen
nam.nguyen@adelaide.edu.au

¹ Adelaide Business School, The University of Adelaide, 10 Pulteney Street, Adelaide, South Australia 5005, Australia

² College of Forestry, Vietnam National University of Forestry, Chuong My District, Ha Noi, Vietnam

³ Malik Management Institute, St. Gallen, Switzerland

Introduction

Rural community development has received a great deal of attention from scholars. Most efforts have focussed on poverty alleviation in agriculture-dependent rural communities in the Third World (Fischer and Qaim 2012; Ha et al. 2016; Herren 2011). But poverty is not the only problem faced by rural communities. It is just one factor, along with social inferiority, isolation, physical weakness, vulnerability, seasonality, powerlessness and humiliation preventing rural people from reaching well-being (Chambers 2012). That means community development is not best pursued by addressing a single issue, but rather by working on multiple fronts to improve the overall quality of community life. Community development looks not only to address physical (such as infrastructure) and economic elements (such as employment) but also human concerns (e.g., health and leadership), social issues (e.g., networks and relationships) and the health of the natural environment, as they are all necessary facets of community vitality (Cavaye 2006; Phillips and Pittman 2014).

Community development is complex because communities behave as living systems - they are highly connected, but uncertain and unpredictable environments (Nguyen and Wells 2017; Wells and McLean 2013). Changes in one area of a system can generate either a positive or negative impact on other parts, the whole and finally on other related systems (Patterson 2010) and the scale of the impact might be much greater than that of the original change. An improvement for the whole may sometimes be inconsistent with short term benefits to a part of the system (Meadows 2002). The parts, however, live in the whole and the health of parts and whole are interdependent. Solutions based on a narrow, parts-focused perspective have, therefore, often failed to generate sustainable outcomes and the indicators underpinned by that perspective are unable to reflect the values of the whole community (Nguyen and Wells 2017; Wells and McLean 2013).

Community indicators have been developed to monitor the progress of sustainable development by integrating isolated perspectives to reflect the wellbeing of whole communities (Gahin et al. 2003; Nguyen and Wells 2017). They are able to describe and monitor community development towards the common good (Nguyen and Wells 2017; Progress Redefining and Network Earth Day 2002), and well-chosen indicators can, themselves, influence communities and support transformational change (Meadows 1998; Nguyen and Wells 2017). Moreover, the collective development of community indicators is an important opportunity for civic engagement, and information obtained from such processes provides valuable input to community planning and community-based policy making (Cox et al. 2010; Gahin and Paterson 2001; Redefining Progress et al. 1997; Work Group for Community Health and Development 2015). In particular, community indicators are important as community wellbeing and health differs significantly, depending on where the community is.

Although, the development of community indicators initially emerged in about 1910 with the social assessments undertaken by the Russell Sage Foundation, and was widely endorsed in the late 1980's to early 1990s, the best way to identify community indicators still challenges scholars (Cobb and Rixford 1998; Phillips 2003). Notably, there has been relatively little work undertaken on promoting and building community indicators in rural areas (Cobbinah et al. 2015; Phillips 2003), particularly in developing countries, where people are facing deprivation and need more effective means by which to pursue community sustainability (Chambers 1995; Cobbinah et al. 2015; Nguyen and Wells 2017).

The complexity of rural communities renders them inaccessible to indicator development based on reductionism and linear thinking, as well as to top-down decision making designed to

cope with rural challenges (Bosch et al. 2014; Reed et al. 2006; van Kerkhoff 2014). Community indicators developed in this more mechanistic way, may provide information for rural communities that monitors progress in each facet of community, but without capturing the overall picture. Meanwhile, we still seem to lack an effective, holistic way to deal with rural complexity and to identify rural community indicators that reflect a whole-of-system approach to sustainable development and community wellbeing (Nguyen and Wells 2017).

In response to this lack, a *participatory systems-based framework for identifying indicators of progress for rural communities in developing countries* (hereafter *systemic community indicators framework*) is conceptually introduced by Nguyen and Wells (2017). This framework is underpinned by sustainability and complexity principles and is based in part on the *One Way Forward* model introduced by Wells and McLean (2013) and on the analysis of *leverage points* provided by Meadows (1999). This framework promotes rural community development by establishing a comprehensive view of the whole living community system to identify systemic indicators and actions, and by itself intervening in the community by facilitating transformational change.

Community ownership and accountability are drivers of sustainable community development. They are formed and achieved only when genuine participation is ensured (Cavaye 2001) and are dependent not only on the purpose and capacity of each project and research team, but also on the skill of the researchers (Greenwood et al. 1993). It seems that true participation of communities is rarely achieved, as the focus seems more often to be on “awareness instead of direct widespread participation” (Sirgy et al. 2013) and there remains a sense that the community are “invited” to projects (Cornwall 2008; Eversole 2010). The participation envisaged as central to this framework for identifying community indicators aims to foster co-learning, sharing, co-experimenting, co-monitoring, co-assessing and refining by the community’s members. With the support of the researchers, this can then stimulate community ownership and accountability.

As a part of an iterative, systems-based action research process, this proposed five-step model for identifying community indicators has now been tested in two rural communes in Vietnam. The process encompassed co-creating a shared vision, teasing out core messages/values, identifying and ranking indicators, and determining experimental actions. It was well accepted by and operated effectively in both communes. It achieved good traction with desired outputs -shared vision and list of ranked indicators, as well as some immediate collateral benefits in active community engagement and collective self-efficacy. A strong sense of community ownership and accountability was a noteworthy product of the whole process (Nguyen et al. 2018. Systemic Indicators for Rural Communities in Developing Countries: Empirical Evidence from Vietnam, Social Indicators Research (under review)).

The next step in the participatory action research cycle requires reflection on the impact of the action taken. A follow-up to the initial fieldwork was undertaken in both communities, exploring the impact about twelfth months after those first community experiments. The community’s engagement in this reflective stage is consistent with the participatory principles underpinning the research project. That is not only because “all stakeholders as experts with important knowledge and perspectives” in participatory action research (Grantgraft n.d., p 3), but also because of the framework’s aim to foster community ownership of the experiments and lessons, and a sense of responsibility for ongoing refinements. These are foundations for improvement to the proposed framework and the establishment of a set of governing principles.

This paper discusses the outcomes of the participatory assessment - the impacts emerging from the first workshops, the community reflections on those impacts, proposed improvements

to our systemic indicators framework, and a set of principles that could underpin a process for identifying indicators in rural settings in developing economies.

Systemic Community Indicators - Reflecting Rural Complexity

Complexity challenges sustainable community development. A community is not able to achieve fruitful outcomes if it focuses on just one component or on each component in isolation, because they are all interconnected and interdependent. It is not able to solve one problem effectively or improve one part of the whole community without influencing the other parts, often in unexpected and unpredictable ways. The community's members are not able to consider the full, integrated picture of their development progress if they only use one-dimensional indicators. Complexity demands a holistic approach, providing insights into the whole community system.

As a 'living' system, a community displays complexity because of the interdependence of its parts and their influence on each other, and also because of its interaction with a changing, complex environment. Community life is uncertain and changes unpredictably – it is not possible to arrive at perfect decisions directed towards a desired goal, or ideal indicators of desired progress in community development.

The process (Fig. 1) that underpins this research project enables the community to identify systemic indicators that can guide and orientate decisions made amidst the uncertainty and complexity of community life (Van Assche et al. 2010) and help to keep the health of the whole community system in mind when making decisions (Meadows 1998; Wells and McLean 2013). This process of identifying, experimenting, reflecting, learning and refining enables rural communities to adapt to unpredictable change and achieve sustainable outcomes (Nguyen and Wells 2017).

The community commences its cyclical development process by co-creating a shared vision – “*How do we really want to experience life and living together in our community?*”. The traditional approach, based on linear thinking and reductionism, tends to focus on what is 'wrong'. Systemic community indicators, on the other hand, do not focus on problems and objective 'problem solving', but rather on a more holistic goal– encompassing the community system as a whole, and reflecting the integrated values and priorities of the community. As we are not able to know exactly how the future will unfold, community decisions (interventions, actions

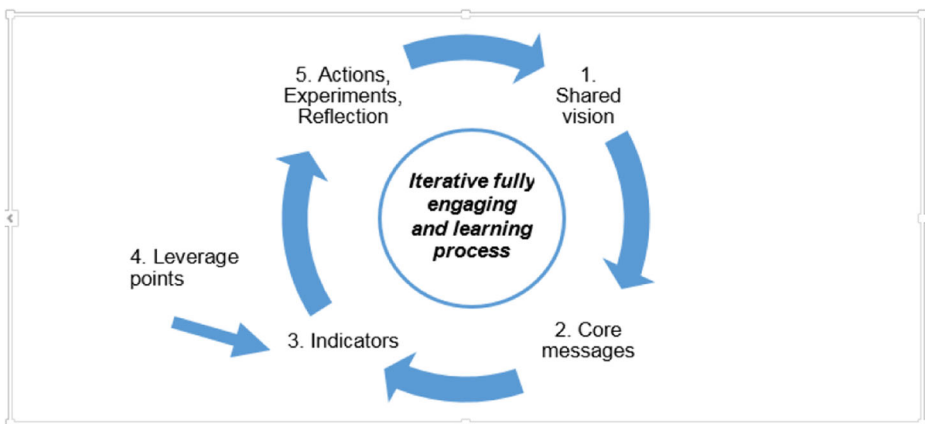


Fig. 1 Systemic community indicators framework for rural community development. (Source: Nguyen and Wells 2017)

and indicators) are considered to be experiments, orientated by the community's shared vision and the vision's core messages or values (Nguyen and Wells 2017; Wells and McLean 2013).

Community development seeks initiatives for transformational change. Leverage points are the most powerful places to intervene for change in the whole system (eg., Meadows 1999; Nguyen and Bosch 2013; Nguyen and Wells 2017; Senge 2006; Wells and McLean 2013). In this light, the systemic community indicators framework is designed to help rural communities identify influential indicators, based on 12 levels of systemic intervention for leverage discussed by Meadows (1999). Influential indicators can influence change in the behaviour of systems, as they are, themselves, leverage points (Meadows 1998). "The more powerful the indicators are, the greater the leverage that can move a community towards sustainability." (Nguyen and Wells 2017).

Systemic Community Indicators - Supporting Sustainable Development in Rural Communities

Over the last two decades, rural development projects in developing countries in general, and community indicator projects in particular, have been implemented in many countries, by both non-government (mainly) and government organisations, and involved many international donors from developed countries. It is significant that the ideas and initiatives have tended to come from outsiders – donors, experts, practitioners and/or researchers. This kind of project is most likely prompted by good intentions and the pursuit of ideal outcomes for rural communities, but the sustainability of outcomes has proven to be limited (Chambers 1983; Khan 2000), as the projects often failed to locate the drivers of a sense of wellbeing and of sustainable development.

Achieving Sustainability by Facilitating Active Engagement

Community ownership, local leadership, local cooperation, intrinsic motivation and accountability could be drivers enabling rural people to develop communities sustainably. These are ideal foundations for rural community development endeavours (Cavaye 2001). Identification of systemic community indicators provides a chance for rural communities to nurture these drivers by fostering sharing, co-creating and co-learning amongst community members. Those communities also need to build the capability to undertake their own development initiatives. The next cycle could then be better than the previous one – a reinforcing feedback loop resulting from the adaptive learning and capability building that the process enables.

Figure 2, below, describes levels of community participation. In the case of rural community development, the process of identifying indicators enables the community members to reach the highest 'stair', as the process requires the players to engage fully so that they can design, implement and monitor development activities, learn from feedback, reflect, and respond with a new cycle of action. In other words, the process fosters community self-evolution, promotes a shift from passive to proactive, cultivates conscious behaviour that feeds and facilitates transformational change. The absence of transforming outcomes has been a weakness in rural development projects (Sirgy et al. 2013), and should be a prime focus in developing countries (Khavul and Bruton 2013). That does not necessarily mean that these communities do not require any support from outside. They may sometimes need assistance, but in a connected way – cooperation and collaboration.

Participation in identifying community indicators involves the active engagement of all stakeholders. Genuine participation improves mutual understanding and accountability (Maani

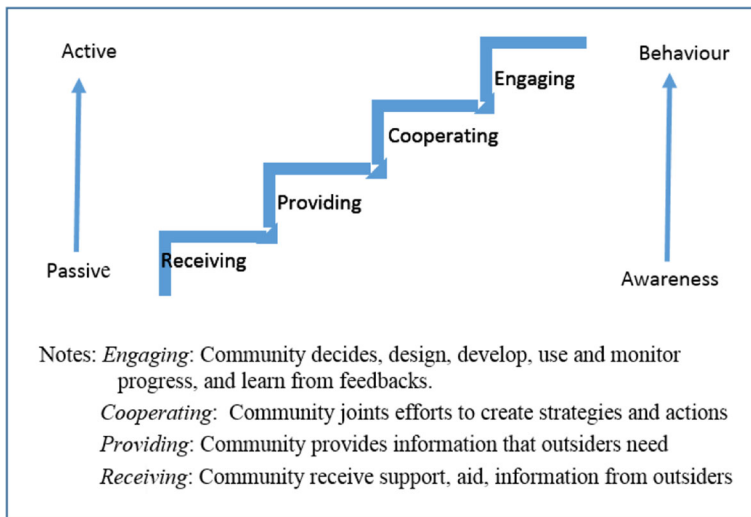


Fig. 2 Levels of community participation in community development. (Adapted from Arnstein (1969), Choguill (1996), Eversole (2015) and Macdonal et al. (2012))

2013; Maani 2002) and develops a sense of ownership of decisions (Dluhy and Swartz 2006; Ha et al. 2014; Stain and Imel 2002). An understanding of each other’s mental models is essential for effective community communication and collaboration in identifying systemic indicators and actions, and experimentation towards the shared vision (Nguyen and Wells 2017).

The co-learning, sharing and collaborative environment, and the open communication that the process facilitates, catalyses the emergence of community leadership. Responding to a dynamic context, local community leaders shape innovative ways of management based on lessons learnt from experiments in how to respond to complex challenges (Heifetz et al. 2009; Yukl and Mahsud 2010). The term “adaptive leadership”, in this sense, does not mean that the leaders have power to control a community. Rather, they facilitate a process by which the community can engage with challenges that do not readily submit to neat, technical solutions, but are messy and ill-defined and, nevertheless, lie at the heart of the community’s common interests. The process provides space within which the community leaders and members, working with other stakeholders, including technical experts, can participate in heart-felt, adaptive conversations, directed towards community goals (Heifetz et al. 2009; McLean and Wells 2010). The full engagement of all community members enabled by this adaptive leadership ensures that members hold themselves mutually accountable for how they feel and behave, and for the consequences of their collective actions.

Achieving Sustainability by Focussing on Ultimate Ends and Wellbeing

The sense of community wellbeing is driven by subjective factors such as community ownership, local leadership, local cooperation, intrinsic motivation and accountability, as “they are powerful enablers for rural communities seeking a good quality of life” (Nguyen et al. 2017 (empirical part of this action research, under review)). They are not only the means by which the communities can pursue their desired outcomes, but also some of the outcomes that best reflect the community striving for sustainable development (Cavaye 2001). A systemic

community indicators framework tracks the path by which rural communities are empowered by themselves (with support from outsiders if necessary) to make and implement decisions that give expression to what the communities most value in their collective life (Cavaye 2006; Nguyen and Wells 2017). Through a process of identifying indicators, and then experimenting and reflecting, rural communities are able to grapple with and adapt to the challenges of a complex environment (with respect from outsiders), and to manage and monitor the emergent outcomes of decisions made in pursuit of their ultimate ends.

The language of “quality of life” and “well-being” has increasingly been the focus of discourses on development (e.g., Chambers (1995), Matarrita-Cascante (2010), OECD (2011), Morton and Edwards (2013), and Daams and Veneri (2016)), as these are the ultimate ends of communities and their members. It is not only the economic sector that is preoccupied with the “triple bottom line” – rural development increasingly seeks to integrate social interaction, environmental quality, and economic health – a kind of “common wealth” that underpins real sustainability (Fig. 3). Well-being includes not only tangible considerations, such as education, health and employment, but also subjective elements like feelings associated with a high quality of life - satisfaction, freedom, happiness, power and self-respect (Boarini 2011; OECD 2011). This requires indicators with the capacity to reflect these dimensions. Systemic indicators that have their origins in a shared story (shared vision), co-created by of all community members, reflecting their collective aspirations, and embracing all facets of wellbeing (Dodge et al. 2012; Felce and Perry 1995), may meet the requirement.

Twelve - Month Reflections by Two Communes in Vietnam

Method

Our action research project aims to facilitate adaptive learning in rural communities (the indicators framework itself is an adaptive cycle). So a year after the first field work was undertaken to test the framework, the researchers came back to the communes (Tam Hiep and

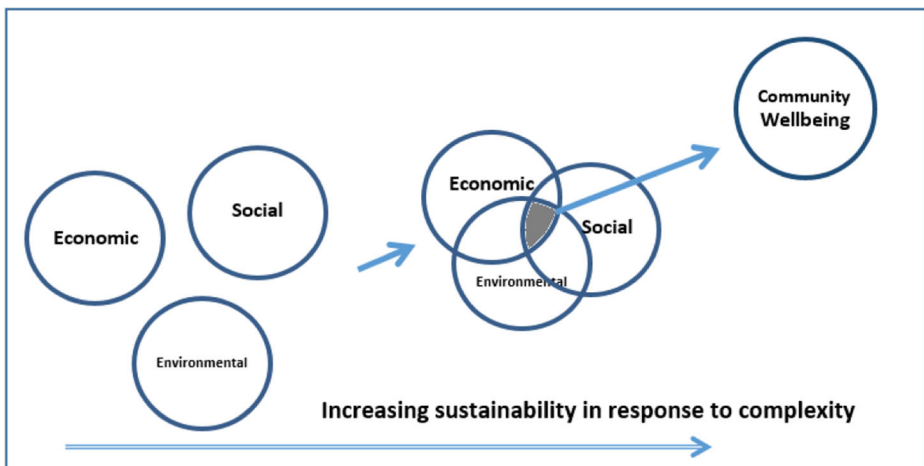


Fig. 3 Integration of social, economic and environmental perspectives into community wellbeing. (Adapted from City of Onkaparinga 2000)

Vang Quoi Dong communes, Binh Dai District, Ben Tre Province, Vietnam) to seek their reflections on those first workshops and the outcomes emerging from them.

Reflection was facilitated through a one-day workshop and 10 individual semi-structured interviews in each community. Both those who had and had not been the participants of the first workshops were invited to share their perspectives and their insight into how the first workshops had influenced the whole community (not just the participants of those workshops). The reflection process started with a review of what had been done and achieved in the first workshops; it then focussed on what the local people think about the first workshops, how the communities have been using the identified indicators, and how the outputs from the first workshops have continued to be refined, in response to the observations and experience of the community. ‘Ownership’ of the workshop outputs was again confirmed. The reflection was a chance for the communities to share and discuss their experiences. The lessons learnt from the first workshops were also revisited in the course of the reflection.

All information and “stories” provided by the workshop participants were noted by local research assistants. All the interviews were carried out and carefully noted by the researchers during the interview, with further reflections captured after the interview. Listening to, experiencing and observing the interviewees’ stories and emotions are of special importance in this research. Interviewer observation supplements, enriches, consolidates and confirms the information obtained directly from the participants. Using a narrative approach, all facets of ongoing change in a community’s life are revealed by the community’s perspective (Squire et al. 2013), and the researchers can gain insight into the way community understand and value (Sandelowski 1991).

The findings, an improved framework, and a set of principles informing the process of identifying systemic indicators for rural communities are presented here, reflecting all the stages of the research project, to this point.

Main Findings

A Year Is Too Long for Follow-Up A year for a second visit and reflection is not appropriate for rural communities in developing countries. It is too long to keep their aspiration “lively”. Not one of the participants of the first workshops could recollect the whole process of envisioning, articulating core messages and identifying systemic community indicators. Nevertheless, it was clear that even over a year untended, some fundamentals had taken root. The core and meaningful words such as satisfaction, cooperation, happiness, good neighbourhood, healthy and respect that had been deeply discussed and agreed as values and part of their envisioned community wellbeing, were spoken excitedly out. They remained lively in the community awareness, although “*rice, clothes, money*” were, of course, still of central concern. If researchers were to visit the communities more frequently after the initial workshop (perhaps every two months), they may come to be seen as “insiders” by the communities and may be more effective in helping to keep the shared vision and chosen systemic indicators lively in the daily activities and decision-making of the community.

Top-Down ‘Encouragement’ Is Not Helpful Without reference to the researcher, staff of Binh Dai department and leaders of the communes printed the visions and indicators from the initial workshops, and passed them to the participants a day before the follow-up workshops. This is a kind of top-down way to ‘deal with’ outsiders. It often happens where projects are funded by governments or managed by non-government organisations, but

there is rarely an official record of this ‘help’. In practice, it is ineffective, as most of the participants do not read these materials, and even if they are read, there is no guarantee that they will be remembered. “I do not remember much about our vision and indicators as we generated them a long time ago” was what a number of participants said when first asked to talk about these. The follow-up process does not aim to focus on or condemn forgetfulness. The shared visions, indicators and actions of the community can be re-enlivened in a care-free environment, without any pressure.

Qualitative Indicators Are Often Able to Prompt Actions Some qualitative indicators are able to prompt action, but quantitative indicators seem to have less impact in this respect. For example, the indicator “Parents are aware of their children’s study progress, attitude and behaviour in school” (identified by Tam Hiep commune) and “Parents’ satisfaction of Parent – Teacher Meetings” (identified by both two communes) appear able to stimulate the thinking of parents about what information they need to know about their children and can receive from teachers; what they should do to make Parent – Teacher Meeting effective; and what they should do to support their children at school. This concern and care for children, may seem an obvious focus, but still needs, crucially, to be improved in rural Third World communities. These qualitative indicators are exactly what the framework for systemic community indicators aims to enable the communities to articulate.

Identifying the Indicators on one Occasion Is Not Enough to Change the Habits of Community “Planning” The communes have not officially used the identified indicators as a backdrop to the formulation of their development plans. One important reason for that is that the development plan usually depends on guidance from the higher level (district/province). And the plan contains only production issues, with other issues addressed by relevant community specialized organisations. Engaging once with the systemic indicators framework does not have a strong impact to change the established mode of planning. Rural communities in developing countries cannot achieve positive planning outcomes if researchers, (or practitioners and developers) come just once (for just research purposes – to test conceptual framework) and leave forever, or for a long time (a year in our case) then return for just one brief opportunity to reflect.

Impact Is Real, although Indisputable Evidence Is Not Easy to Obtain Enduring outcomes may not occur in just one year (e.g., GDPRD et al. (2008)) and those that do occur are not easy to delineate and assess, or to elucidate with unambiguous evidence. This is consistent with Innes and Booher (2000) observation that “Their influence came through a more complex and less observable process than even those involved recognised”. Nevertheless, the identified lead indicators (often conceived as qualitative) can prompt change, and by using those indicators, the participants at least can feel that their vision is unfolding. For example, more and more Tam Hiep commune’s members felt uncomfortable with the waste thrown in the farms and on the roads, and the bad smell from manure in public areas. Some of them reported to the authority about what and where waste was left, and which households were responsible. It was clear that their action, and the change in behaviour demanded, were prompted by the conviction that the current state of affairs was not consistent with “what they really want” in regard to local environmental protection, – a member of Tam Hiep commune reflected in her in-depth interview that “Identifying the indicators and understanding them will change our awareness and behaviour” –.

Although the “most significant change” technique was not explicitly applied in this fieldwork (Dart and Davies 2003), the qualitative participant assessment that was facilitated during the reflective workshop and interviews has much in common with that technique. Participants were encouraged to identify and discuss the impacts of the initial workshop, twelve months earlier. It may be that a more explicit use of the technique, as one component of the reflection that follows envisioning and indicator identification, would assist participants to evaluate and celebrate the impacts of the systemic community indicators framework, especially where those impacts are not readily quantifiable.

Participation of the most Powerful Leaders in a Community Is Critical The engagement of all community members is the focus of the process for identifying indicators, as discussed above. Community leaders play a critical role in facilitating and promoting change. Involving community leaders in the whole process and empowering them is indispensable and central to the model in particular and rural development in general. Only a deputy-head of the communes participated in the first workshops and the reflection is not sufficient. Their voices do not carry as much weight as heads of communes and secretaries of the party, and those who have the strongest power in the communes, who must be brought together with all the other people involved in the process. This does not mean that the leaders have the right to decide the commune’s vision, indicators and actions independent of the other participants. But by participating in the process they not only come to know and feel how the process works and the benefits it can provide, but they also have a broad understanding of the thinking, wishes and priorities of community members. They have a special insight into the community as a whole and are respected and trusted by the people in their communes, and vice versa.

As true participation of all members of the communities is the key of the framework, attention has been paid to this throughout the whole process. Even though the workshops’ participants included leaders and representatives of all levels of wealth in the community, all voices have been treated equally and included in the processes and their outputs. The participatory techniques and methods, such as small group discussions, brain storming, independent thinking and writing on cards, speaking in turn, and being overt of all ideas were effective in reducing dominance and encouraging vulnerable individuals to participate in the workshops. Although the envisioning process, in particular, has an innate capacity to negate power differentials, it is still possible for habitual, power-based relationships to intrude on these processes, and the facilitators must remain vigilant so that any early signs of this can be corrected, without loss of face.

More Participation at the Small Group Level may Be Valuable This cycle may be better undertaken in every village, before gathering and synthesizing all the village visions, indicators and actions at the commune level. There are several reasons for this: (1) The scope of a rural commune is too large for every member to join in a workshop, but workshops at the village or sub-village level (around 20–40 households) would be an effective means by which to involve as many individuals (or household representatives) as possible in the whole process. “Everyone should participate and contribute. That is much better than that the representatives do it and the propagandize (as often happens)” – was the view of many of the participants; (2) Villages do not have to build an official plan to submit to a higher administrative level, but they can create an integrated vision for themselves, including every facet of their lives; (3) In a village, everyone knows each other, and is likely to be open when sharing and learning, so that interactions are richer and their impacts quicker; (4) Undertaking the process at the village level

would influence and empower action at the communal level because leaders of communes and specialized commune staff are also members of villages; and (5) Although the commune have to have an official production plan to submit to the district authorities, it can also make an integrated development plan of its own. And whether the visions, indicators, plans of the villages and communes' are officially recognised or not, the process can shape decisions and activity directed to communal development just as a result of participation in the process.

Paying Community Participants may Be Counterproductive Although most of the participants said “it is not difficult to undertake the process of identifying systemic community indicators”, it was, in fact, hard work (for both researchers/facilitators and members) to make their way through the process to a fruitful outcome. The allowance paid to community members for participation might be one of the main reasons for the positive assessment. This is the way many rural development programs and projects have been approached, in order to involve local people. It creates the habit of expecting a subsidy from outside. Obtaining the genuine engagement of rural communities is still a challenge, and as with all such adaptive work (Heifetz et al. 2009), holding a space in which change can emerge requires time and committed practitioners. The role of external supporters (researchers/facilitators) is to shape an experience that engages participants at the level of their intrinsic motivation – that is, how an activity meets their inner needs, rather than using ‘extrinsic motivation’ to engage. ‘Bribing’ participants is likely to generate a range of perverse outcomes, chief amongst which is the diminishing of their intrinsic motivation (Kohn 1993).

The Process Builds Human and Social Capital It was clear that this cycle directly built “intermediate ends” - human and social capital in community (Meadows 1998). It created a platform for uniting the community members through a ‘sense of community’ with ‘neighbourhood cohesion’, and “the belief that one’s needs are capable of being met within the community and a sense of belonging or mattering to the community” (Boyd et al. 2008). That, in turn, can lead to “ultimate ends” – community wellbeing.

Revisiting Increases the Community’s Knowledge and Awareness Although the identified indicators had not yet explicitly been used to inform the communes’ plans and actions, or the measurement of community development, the process of reflection itself increased the knowledge and raised the awareness of the workshop participants. To begin with, no one in the follow-up workshops could remember the indicators from the first workshops or details of their other outputs. But by the end of the reflective activities, they understood their indicators clearly – as one of the participants put it, “they serve both orientation and monitoring” and another “now we are clearer about what are important for us based on the vision and indicators”.

In addition, the revisiting was a chance for them to remember and speak out their co-created vision. They did that excitedly, even though they did not remember all the details of their shared story or all the core messages they had identified. It is a powerful indication that they continue to think about and be gripped by *what they really want* – the spring-board for their self-respect and self-organisation towards sustainable development. Robert Fritz, cited in Senge (2006) “It’s not what the vision is, it’s what the vision does”.

Moreover, they conversed enthusiastically, and actively approached the wall where their co-created visions and identified indicators were hanging. Some of them stayed after the workshop had formally finished and continued to discuss the indicators. They compared the similarity and differences between their identified indicators and the “Cultural village” criteria

(issued by the authorities at the provincial level). That was a very good chance to understand the importance of ‘lead indicators’, which communicate what is unfolding, not what has already happened.

After the follow-up workshops, they were in a position to share with and learn from other community members (both the participants and non-participants) and be alert to feedback that could form the basis of further reflection and a new round of actions or experiments.

Improved Framework

Based on the findings and lessons learnt from the initial workshops and the 12-month follow up, the original framework for identifying systemic indicators for rural communities in developing countries has been modified (Fig. 4). Starting with co-creating a shared vision (step 1), then teasing out core messages (step 2), the framework can facilitate strategic action, prompted directly by the core messages (step 3), while also identifying indicators (step 3a), and ranking influential indicators (step 3b). That means experiments could be based directly on core messages, and high leverage indicators, based on core values, may also influence actions naturally. But the indicators should be continually revisited and reappraised in the light of their primary role, that is to help monitor whether actions are actually bringing the shared vision into being.

Figure 4 also represents the separation of step 5 (in the original framework) into 3 steps (Identifying actions/experiments, Experimentation and Reflection), in order to reflect more faithfully the experience on the ground during the research. After determining actions/experiments (step 3) and categorising influential indicators (step 3b), the communities will undertake experiments with or without support from outsiders (step 4). The reflection should be critically conducted after the experimentation to assess how the actions and indicators have worked towards bringing the vision into being, as well as whether the vision itself needs

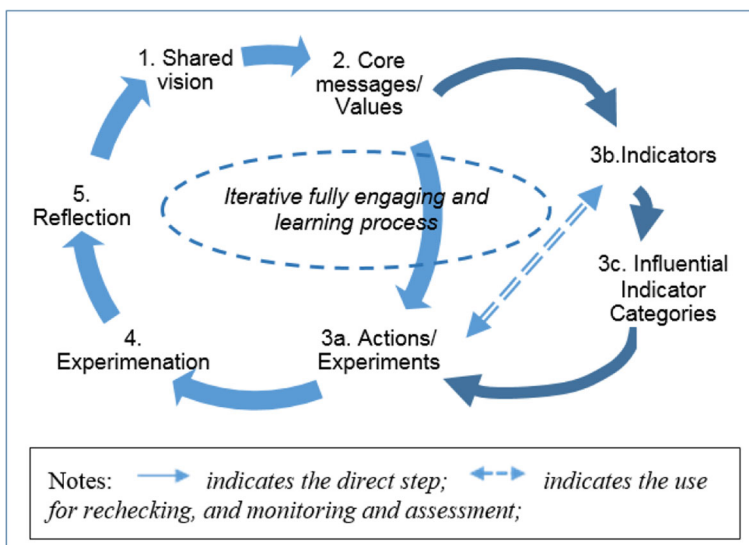


Fig. 4 Revised systemic community indicators framework for rural communities. (Modified from Nguyen and Wells 2017)

refining (step 5). The process continues with the next cycle of experiment and learning, responding to what emerges in practice and reflecting the lessons learnt.

Principles Underpinning the Process of Identifying Systemic Indicators for Rural Communities

In practice, rural communities in developing countries still need support from outside the community. The systemic community indicators framework, however, does not encourage communities to ask for assistance from outsiders (governments or non-government organisations) or comply passively with whatever outsiders ‘guide’ them to do. It seeks to assist practitioners/developers (or ideally the communities themselves) in facilitating processes by which rural communities can ask questions, understand more about themselves through building their shared vision, identify compelling indicators of progress and decide on collective actions, rather than being asked or provoked by paid outsiders. The following principles are proposed as a foundation for the effective application of the systemic community indicators framework.

The Focus should Be on Communities as a Whole, Respecting and Harnessing the Nature of Complexity As mentioned, isolated parts (a problem, stakeholder or sector) of a community system cannot be effectively addressed in separation, as the community’s parts are interconnected and interdependent, and collectively shape community values, health and vitality. The systemic indicators process seeks to facilitate communities working holistically. Communities and practitioners should think of community actions as experiments and be prepared to work with emergent phenomena and uncontrollable changes. The process functions as an iterative and adaptive learning cycle to enable the communities to have such ability.

Practitioners/Researchers/Facilitators should Imbed themselves, As Far as Possible, in the Community Working *on* the community as expert outsiders has proved largely ineffective. Working *in* the community as trusted facilitators has a better chance of engaging community members and securing their participation. Outsiders making short visits to undertake ‘field work’ will more likely struggle to gain the community’s trust, real engagement and commitment. That inability to connect with the community will, in turn, render the outsiders less effective in helping community members to articulate their vision and set about bringing it into being.

Empowering People and Communities, and Building a Sense of Ownership While practitioners should aspire to establish themselves as ‘insiders’, they cannot replace real insiders. To achieve the community’s version of sustainable development, community capacity and capability must be built throughout the process, especially in the first envisioning cycle, so that community members can undertake the subsequent cycles more and more independently and make whatever decisions they think will reflect the core values of their community. Only if they have the opportunity and the capacity to decide, own and use what belongs to them, will development and resilience be cultivated, both at the individual and collective levels.

Ensuring Genuine Community Participation and Ownership Cobb and Rixford (1998) argue that “a democratic indicators program requires more than good public participation processes”. That is especially true for the creation of systemic community indicators. Practitioners

and communities should involve as many community members as possible, and hold as many workshops as required to create a truly shared vision, collective indicators and agreed actions, all of which reflect what the members care about most, as expressed in their values-rich stories. That kind of process generates a feeling of “belonging” for all community members, which leads in turn to an authentic sense of community ownership.

Keeping the Framework and Language as Simple and ‘Local’ as Possible The framework cannot be effective if it is described and presented in a complicated manner, using language that is confusing or inaccessible for a particular community. Framing the process in a way that makes sense in the local community context plays an important role in achieving useful outcomes.

Paying an Allowance to Get People Involved may Be Counterproductive It goes without saying that rural communities in developing countries often need financial support, but paying community members for participating in a project that seeks to improve their lives and community life, will not build a culture of ownership. This practice may cultivate the counterproductive habit of ‘participating’ in a project simply because they are paid to do so, not because they see value for the community in the project itself. The organisational behaviour literature is replete with accounts of research in motivation confirming that attempts to ‘motivate’ behaviour using rewards and punishment, ‘sticks and carrots’, may produce short-term, superficial compliance, but no enduring shift in underlying attitude or commitment (e.g., Kohn (1993)). In fact, the very application of an extrinsic, ‘do this and you’ll get that’ approach, tends to *undermine* the intrinsic motivation associated with the task involved. The practice of paying for attendance may well have contributed to the failure of previous initiatives to make a lasting contribution to sustainable development.

Pay Attention to the Process and Do Not Rush to Produce Outputs Indicators are important, as “results are impossible without proper indicators. And proper indicators, in themselves, can produce results” (Meadows 1998). But benefits can emerge throughout the process, not just via final outputs. In other words, *outcomes* are every bit as important as *outputs*. Learning, agreement, a sense of shared purpose, mutual accountability and shared responsibility are products of thinking, discussing and sharing in community. Such valuable factors cannot be achieved if we focus too much on outputs and rush to produce them in a short time. Moreover, the quality of indicators depends on how profound the process is (that is, on how well the community understands and engage in the whole process, how well they build their values rich stories together, make sense of their indicators and use them *over time*). It is not easy to produce outstanding indicators –“the development of an influential indicator take time” (Innes and Booher 2000).

Having Many Indicators Does Not Necessarily Mean that they Are Good Indicators The quantity of indicators identified is not as important as their quality. A good indicator may even prompt transformational change but identifying many indicators does not improve the odds of achieving such an outcome. Nevertheless, the community may still need more than a few indicators in order to explore all facets of its wellbeing.

The Community must ‘Make Sense’ of every Indicator Communities need a number of indicators to reflect their wellbeing, but the indicators only become effective when they are

meaningful for and understood by the community. Otherwise, the indicators may lead the community astray. If the community acts without understanding, the capacity (propensity, even) of complex systems to produce perverse outcomes is more likely to assert itself.

There Is no Need for Indicators to Be ‘Perfect’ as Judged by the Experts/Outsiders; it Is Better to Let the Community Indicators Stand in the Form that Is Familiar to the Community and Makes Sense to it As the proverb goes, we should not let the perfect become the enemy of the good. Community indicators are used by and for the community, and they cannot be influential and/or monitor effectively if they look ‘strange’ to the community (e.g. expressed in specialist jargon that may unintentionally mislead). As with all initiatives in a complex environment, the aim is not to get the indicators ‘correct’, but to start with indicators that seem to make sense, and then to refine (or change) them over time, in the light of experience and reflection.

Do Not Ignore or Underestimate a ‘Little’ and/or ‘Obvious’ Indicator, as it Sometimes Leads to Powerful Outcomes “Little things that mean a lot” is the ideal indicator, and that notion seems to get traction in these communities. Many ‘little’ things that may look ‘obvious’ to people in developed countries (for example, the idea that children have a right to refuse food they do not want) are not as quickly and easily recognised or expressed in some developing countries like Vietnam. But there is high leverage associated with actions prompted by or reflected in such an indicator.

Seeking and Using Right Indicators, and Interpreting their Information into Actions Actions can be prompted by core messages and influential indicators. But it may be preferable for indicators to retain their central role, monitoring the trends of community activity, and in that way informing the decisions made about future actions. Those indicators should be wisely chosen, as using superficial or ill-considered quantitative indicators that could be favoured simply because the data is accessible, may not only fail to capture a holistic, integrated perspective on community well-being and sustainable development, but might also prompt actions that deliver perverse or destructive outcomes. Besides, the community’s actions may need, and attract, implementation support (technical, financial, and/or informational) from outside, so it is critical that the community should be clear about what it aspires to. Systemic indicators, emerging from and reflecting a shared vision and shared values, help to ensure that energy and other resources are directed to what the community really wants, not just what it will settle for.

Conclusion

Establishing an effective systemic community indicators framework for rural areas, where the challenges are especially characterised by the uncertainty and complexity that lie at the heart of living systems, has never been easy. It requires that we identify indicators that are holistic and practical, simple, and able to reflect community wellbeing and facilitate community decisions towards sustainable outcomes.

The process proposed here for identifying systemic rural community indicators reflects the nature of living systems, and hence does not encourage rushing in to find “quick solutions” for each problem. It studies the whole system and first seeks to “listen to the wisdom of the

system” (Meadows 2002) to honour what is already present and to find the right places to intervene for greatest effectiveness. The process is a possible pathway by which communities can learn continually about their system and reflect on which actions will be most effective in pursuit of their shared vision. The phases of the cycle leading up to decision making – envisioning, extracting core messages and identifying community indicators – contribute to determining wise action. The identification of powerful, leveraged indicators (little things that mean a lot) enhances a community’s understanding of which actions can best contribute to bringing their envisioned future into being.

A set of principles for applying the framework for systemic community indicators in rural settings in developing countries are documented in this paper, based on findings from follow up action research in two communes in Vietnam. These principles are intended to contribute to filling the current gap in the understanding of community indicators for rural communities, by framing the communities as adaptive learning systems. This holistic and practical framework provides a potential pathway for sustainable rural development, but could also find application in organisational and urban communities.

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