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## Chapter

# A Framework for Facilitating Holistic Interventions for Building Community Resilience to Climate Change for Sustainable Community Development

*Precious Tirivanhu*

## Abstract

The realities of climate change in Africa have led to a growing need for innovative approaches to livelihoods programming that promote resilience among rural communities for sustainable community development. Although several community resilience frameworks are emerging there is a need for practice modalities. This paper proposes a programming framework grounded in soft systems thinking that brings an understanding of the multi-dimensional and integrated nature of resilience programming. The author utilizes experiential knowledge from over a decade of rural development facilitation in Zimbabwe coupled with secondary reviews to address two key research questions: What are the critical components of a systemic programming framework for community resilience? And, how is such a framework facilitated in practice? The paper concludes by giving critical components of the systemic programming framework and recommends that the framework should be tested empirically for its components to be integrated into resilience programming in Zimbabwe.

**Keywords:** systemic programming framework, soft systems methodology, resilience, climate change, sustainable community development, Zimbabwe

## 1. Introduction

Zimbabwe, like most southern African countries, currently faces erratic weather patterns amidst a rural population that is highly dependent on rain-fed agriculture for livelihood. The impacts of climate change have become a reality and this scenario calls for urgency in improving rural livelihoods and sustainable community development. There is growing recognition amongst development practitioners, academics, policymakers, non-governmental organisations (NGOs), and funding agencies for innovative approaches to the design and implementation of livelihoods programs that promote resilience among rural communities. Several proposed frameworks are emerging mostly based on improving the adaptive, absorptive, and transformational

capacities of vulnerable communities. A key question remains on how such frameworks can be developed into practical programming models for rural development practitioners. Research on the impacts of climate change on agriculture and food systems is not new. In fact, a review of the literature shows that such studies in Zimbabwe and most parts of southern Africa can be traced to the 1980s.

Considerable research has been conducted on the impacts and potential impacts of climate change on Zimbabwean rural households, see, for example, Masiyiwa et al. [1]; Brown et al. [2]; Gwimbi [3]; Mutekwa [4]; Nhemachena and Hassan [5]; Kinuthia [6]; Buckland [7]; Matarira et al. [8]; Downing [9]. Some of the key documented climate change impacts include food insecurity; malnutrition; increases in incidence of drought, extreme temperature fluctuations, unpredictable seasons, reduced run-off necessary to sustain the country's hydro-electric power supply, damage and destruction of infrastructure. There has been an increase in both minimum and maximum temperatures in Zimbabwe. In addition, it is documented that the most adverse impacts of climate change are in the developing world because of geographic exposure, reliance on climate-sensitive sectors, low incomes, and weak adaptive capacity. According to Heltberg et al. [10], most vulnerable households are those with assets and livelihoods exposed and sensitive to climatic risks and who are most dependent on rain-fed agriculture. This paper makes a deliberate departure from the discourse on climate change impacts (which has been given much attention) and focuses on how programs or projects on building community resilience against the impacts of climate change can be facilitated in practice since there is a dearth of such studies.

## **2. Climate change interventions amidst evolving rural development approaches**

Approaches to rural development programming are always in transition. Such dynamism can be attributed to several factors including the continuous shift in development paradigms or thinking; the need for donor effectiveness; continuous learning and knowledge generation from rural development practice; and continuous shifts in global and local socio-economic, socio-cultural, and political factors affecting rural livelihoods. A synopsis of the rural development programming trajectory identifies several phases and shifts in development paradigms from the 1950s to the present that influenced praxis. These include development as economic growth and modernization in the 1950s; state intervention in the 1960s; market liberalisation in the 1980s; poverty reduction, participation, and empowerment in the 1990s; environment, climate change concerns, sustainable livelihoods, and millennium development goals (MDGs) in the early 2000 and more recently sustainable development goals (SDGs) and the focus on resilience [11–13]. These development paradigms shape worldviews, beliefs, and perceptions on appropriate programming approaches.

Although a detailed account on the evolution and progression of programming approaches is beyond the scope of this paper, a few approaches are highlighted here to give a context. A review of literature highlights varying nomenclature in classifying rural development programming approaches.<sup>1</sup> Westoby and Dowling [14] identify several of these approaches. These include community driven development (CDD);

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<sup>1</sup> The approaches outlined here are not necessarily the most effective but are perceived as commonly applied in the African community development context.

rights-based community development (RBCD); asset-based community development (ABCD); sustainable livelihoods approach (SLA), people-centred capacity building approach (PCCBA); comprehensive community initiatives, and most recently, community resilience approaches which are the focus of this paper and are detailed in proceeding sections. CDD is associated with investments by the World Bank although its origins are linked to post-colonial years in India and Bangladesh during the 1940s and 1960s ([15], p. 27). Such a scenario has been linked to huge investments by the World Bank<sup>2</sup> into CCD projects in the last decade. It is an approach that empowers the community by giving control of decision-making and resources. Communities are given the power to plan, execute and monitor projects. It places emphasis on improving governance capacity of the community and local development institutions.

Rights-based community development sets the achievement of human rights as a development objective and utilizes international human accountability to support development [17]. Its tenets are linked to the 1948 Universal Declaration of Human Rights and the 1986 United Nations Declaration of the Rights to Development (UNDRD). According to Cornwall and Nyamu-Musembi [18], the rights-based approach calls for existing resources to be shared more equally and for assisting the marginalised people to assert their rights to those resources. Its origins are highly contested with some scholars arguing linkages with gender and human rights struggles [19]. Other scholars link it with rights of the disabled [20] and civil, political, economic, social, environmental, and cultural rights [21].

ABCD is based on the assertion that communities can organise and drive their own development through the identification and mobilisation of existing resources at their disposal [22]. The SLA links socio-economic and environmental development concerns within communities and focuses on people's strengths. It looks at five types of household assets; natural, social, financial, physical, and human capital and how they sustain livelihoods. The approach is premised on livelihoods, which are regarded as means of gaining a living through capabilities or livelihood strategies (e.g., agricultural intensification, livelihood diversification) and assets (both tangible and intangible). Livelihoods are taken as sustainable through the ability to recover from stress, and shocks to maintain and enhance capabilities and assets without undermining the natural resource base [23]. The approach emphasizes the importance of contexts, institutions, and supportive policies in enhancing livelihoods.

Related to SLA is community capitals framework (CCF) which is a systems approach to analysis of communities for holistic interventions. It emphasises seven different forms of capital; natural, human, social, financial, built, cultural and political, types of assets found in each capital, and how capitals are converted and coordinated. It provides tools for identifying capabilities for change of vulnerability situations. The CCF is related to the SL framework, with five capitals (human, social, financial, natural, and physical) being part of the assets in SLA framework. CCF adds cultural and political capital; the former brings dimensions of values, norms, and world views while the latter caters to influencing power dynamics, laws, policies, and strategies that affect livelihoods. Another approach within the African development discourse is the comprehensive rural development program (CRDP) or integrated rural development program or approach which cuts across all sectors and comprehensive approach whose components include agrarian reform, rural development, and land reform [24].

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<sup>2</sup> Over the period 2000–2010, the World Bank has invested an average of USD 2 Billion a year for its CDD portfolio. In 2003, CDD represented \$7 Billion of the World Bank commitments [16].

In the last two decades, there has been a proliferation of comprehensive community initiatives (CCIs). These are multi-sectoral, multi-stakeholder approaches to rural development [25]. They aim at a system-wide approach to community empowerment. They provide communities with leadership skills, youth, and women empowerment, aim at improving health systems and entrepreneurial skills, and enhance the utilisation of information communication technologies within communities. Comprehensive community initiatives (CCIs) present a shift from project-specific interventions toward a multi-faceted approach that aims at community-wide socio-economic transformation. They cover multiple development sectors (health, social services, leadership development, information communication technologies, youth development, institutional strengthening, women empowerment, and entrepreneurial development). CCIs engage multiple stakeholders including government departments, community-based organisations, private sector companies, research, and academic institutions. They are the shift from developmental approaches that view communities as recipients of aid and empower communities through decision-making and financial control. Communities are viewed as partners in developing community-led local development solutions. The following section explores the concept of community resilience which is at the core of this paper and is currently a core theme in rural development programming in the context of climate change.

### **3. Building community resilience**

Resilience focuses on how a community or individual can deal with disturbance, surprise, and change. It entails framing a sustainable future in an environment of growing risk and uncertainty. The concept was originally coined from ecology but currently borrows from various disciplines including ecosystems stability, complex adaptive systems, engineering infrastructure, psychology, behavioral sciences, and disaster risk management [26, 27]. The concept of resilience does not have a common definition and its building blocks are highly contested. However, it is generally formulated around the continued ability of a person, group, or system to adapt to shocks and stress and continue to function, or quickly recover its ability to function, during and after stress [28].

In the rural development context, it focuses on how communities can recover after a hazard, to their reference state of livelihood status or improve for the better. It is the ability to withstand (absorb) shocks and stresses, as well as the ability to adapt to dynamic conditions and put in place mechanisms that enable longer-term, systemic responses to the underlying causes of vulnerability [29]. The need for building community resilience to the impacts of climate change has become central to rural development programming [26, 30–32]. Effort has been put into developing theories of change that build/strengthen household and community resilience. This requires helping people cope with current change, adapt their livelihoods, and improve governance systems and ecosystem health so they are better able to avoid problems in the future. It requires an integrated approach and a long-term commitment to improving three critical capacities (absorptive, adaptive, and transformative), which are interconnected, mutually reinforcing, and exist at multiple levels, i.e., individual, household, community, national, and ecosystem levels [26, 32]. Absorptive capacity leads to persistence, adaptive capacity leads to incremental adjustments/changes and adaptation, while transformative capacity leads to transformational responses [26].

According to Frankenberger [29], most NGO work on resilience programming has focused on five fundamental variables in developing theories of change. These

variables a focus on shock dynamics, a multidimensional capacity, resilience functions, outcome-indexed capacities, and a multilevel and systems-based approach. Shock dynamics focus on understanding the type of shock(s) and the effects of the shock(s). A multidimensional approach draws on human, social, economic, physical, ecological, and programmatic (for example, safety nets) resources, the optimal configuration of which varies by type of shock, level of aggregation, context, and community. Resilience functions prepare for and respond to a particular type of disturbance or configuration of disturbances. They may require different types of absorptive, adaptive, and transformative capacities. Outcome indexed capacities stipulate that resilience should be indexed to a given well-being outcome. The specific capacities drawn upon may vary depending on the outcome of interest (for example, health, food security, poverty). Multilevel, systems-based approach argues that resilience is observed at a given level (such as household or community) but is understood as a multilevel construct. Interventions should be sensitive to nested dependencies between levels (for instance, households and communities, communities, and regions).

Absorptive capacity is the ability to minimize exposure to shocks and stresses through preventative measures and appropriate coping strategies to recover quickly and avoid permanent, negative impacts [26]. It is built through various incremental changes and adaptations that people undergo to continue functioning in response to a shock or growing stress, without making major qualitative changes to the way they operate. These adjustments can take many forms. In the context of rural households affected by food insecurity, examples include the adoption of new farming techniques, the diversification or adjustment of household's livelihood activities, and the decision of taking out loans or connecting to new social networks. Disaster risk reduction/management (DRR/DRM) supports improved absorptive capacity by helping households and communities reduce risk and absorb the impacts of shocks without permanent, negative impacts on their livelihoods [32].

Adaptive capacity is the ability to make proactive and informed choices about alternative livelihood strategies based on an understanding of changing conditions. It is the capacity to learn, combine experience and knowledge, adjust responses to changing external drivers and internal processes, and continues operating ([33], p. 13). According to Brooks [34]; Smit and Wandel [35] adaptation refers to adjustments in a systems' (household, community, group, sector, region, country) behavior, characteristics, actions, or outcomes that enhance its ability to cope with, manage or adjust to some changing condition, stress, hazard, risk or opportunity in order for the system to improve livelihoods. The rural development discourse derives knowledge of adaptation mostly from studying vulnerability to natural hazards and impacts on food insecurity [36]. Adaptation strategies realise that communities can take concrete steps to minimise net losses from climate change including taking advantage of opportunities for gains. Improved adaptive capacity results from adjustments that include livelihoods diversification, asset accumulation, and improved social and human capital.

Transformative capacity refers to system-level changes that enable more lasting resilience at the household and community levels. In recent years, resilience programming has shifted the balance of effort and resources from short-term humanitarian assistance efforts toward a combination of disaster risk management, climate change adaptation, livelihood diversification, social protection programs, and longer-term institutional development and systemic change [32]. Transformative capacity enables more lasting resilience at the household and community levels through altering permanently and

drastically the system's functioning or its structure to ensure the immediate "survival" of the household/system. It encompasses the governance mechanisms, policies/regulations, infrastructure, community networks, and formal and informal social protection mechanisms that constitute the enabling environment necessary for systemic change [32].

#### **4. The need for a systemic programming framework for community resilience**

The need for a systemic or holistic programming framework for community resilience and improved livelihoods advocated in this paper is justified by three assertions. Firstly, there is a growing paradigm focused on improving community resilience against the shocks and stresses of climate change. Secondly, non-governmental organisation (NGO) work in Zimbabwe has been highly fragmented, and uncoordinated. Finally, there is a dearth of literature that chronicles good practices in rural development facilitation.

NGO activities in Zimbabwe have been highly fragmented in practice. Social experiments by these organisations have in most instances focused on isolated projects which tend to ignore the holistic nature of community life and make abstract assumptions from reality. In essence, such individual projects should be a part of a bigger puzzle and avoid duplication. Within the context of resilience being addressed in this paper, the components of building resilient communities should not be piecemeal but rather be integrated and have emergent properties. In recent years, it has become increasingly clear that, through encouraging systems-based thinking the concept of resilience has the potential to radically transform the compartmentalised and somewhat fragmented ways of developing vulnerable rural communities [31]. By recognising the complex interplay of the conditions of vulnerability, resilience could provide a means for more holistic understandings of such complexity by shifting attention away from individual project approaches toward addressing the complex milieu of community conditions.

This paper focuses on how resilience programming can be facilitated in practice. Although several NGOs have implemented various programming approaches, there is a dearth of literature on how such processes are conducted. Such a scenario is understandable as programming approaches determine the competitiveness and comparative advantage among NGOs. Thus, it becomes irrational to expose the 'secrets' of their programming successes. However, in recent years, potential approaches to building community resilience against the impacts of climate change have been conceptualised and documented but need to be tested empirically [29, 32]. It is against this scenario that this paper is premised. The key research questions addressed are: What are the critical components of a systemic programming framework for livelihoods and resilience? And how is such a framework facilitated in practice?

#### **5. Conceptual framework**

The concepts of soft systems methodology provide conceptual building blocks for the development of a systemic or holistic programming approach for building community resilience. Laslo and Krippner [37] define a system as, "a complex of interacting components together with the relationships among them that permit the identification of a boundary-maintaining entity or process". The underlying principle

of systems theory is that the effects or outputs of a system are dependent on the interactions among various components. Studying the components in isolation will not provide an accurate picture of the system [38–40]. Unlike the reductionist research approaches that rely on drawing samples, systems theory does not separate individual components under study but focuses on how these components interact with each other in their entirety [40]. Central to systems theory is the concept of wholeness that aims at bringing together fragmented research findings in a comprehensive view of man, nature, and society. Systems thinking is championed on the premise that there are emergent properties of systems that do not exist when systems are decoupled into smaller parts [41–43].

There is a diverse array of system thinking methodologies including system dynamics, critical systems thinking, viable systems, and critical systems heuristics, among others [44]. This paper adopts soft systems methodology (SSM) as a conceptual framework. The core of SSM is the construction of models of the system(s) being studied. These models are used to discuss how to bring about organizational/community change. They allow the community to engage in debate and the practitioner/facilitator to elicit multiple perspectives. The learning that takes place leads to purposeful<sup>3</sup> action systems. The models constructed through SSM are regarded as learning systems, instead of incontestable representations of reality. Within the context of this paper, therefore, the term 'system' refers to the process of inquiry, *i.e.*, the analysis of a situation, rather than to an "objective" view of the world that the observer assumes to be capable of managing. SSM is premised on structuring coherent debates and allowing those involved in the problem situation, and those likely to be affected by any solutions to define the problem to be addressed [45]. It allows those with differing perspectives to understand each other sufficiently, so that they may act in the world in a way that all parties can live with ([44], p. 143). This paper adopts the classical SSM<sup>4</sup> implemented following a seven-step process as illustrated in **Figure 1**.

The first stage explores the situation within a framework of the real world. It focuses on the mapping of cultural history, stakeholder analysis, community perspectives and assumptions, historical trends, among other factors. The purpose is not to define the problem but to solicit holistic unstructured parameters of the problem situation through dialogue and debates with all the affected and those capable of bringing relevant choices. Stage 2 expresses the problem situation through development of a rich picture from the unstructured problem in stage 1.

Stage 3 provides root definitions of relevant systems in the problem situation. This is a departure from the real world and provides perceived choices. A root definition is a statement defining what is relevant to the system and who is either affected or affects it. Defining root definitions is guided by a CATWOE analysis (Customers, Actors, Transformation process, *Weltanschauung*, Owner, and Environmental Constraints). Customers are the victims/beneficiaries of the purposeful activities. Actors are responsible for the activities while the transformation process is expressed as inputs, transformation, and outputs. *Weltanschauung* are the worldviews for a meaningful system and owners are community members who can stop the system from functioning. Environmental constraints are taken as 'given' and difficult to influence, affect, and change (**Figure 2**).

<sup>3</sup> A system is purposeful if it allows debate and reflection.

<sup>4</sup> SSM has gone through reviews over the last three decades based empirical studies from different discipline. See for example Checkland and Scholes [46].



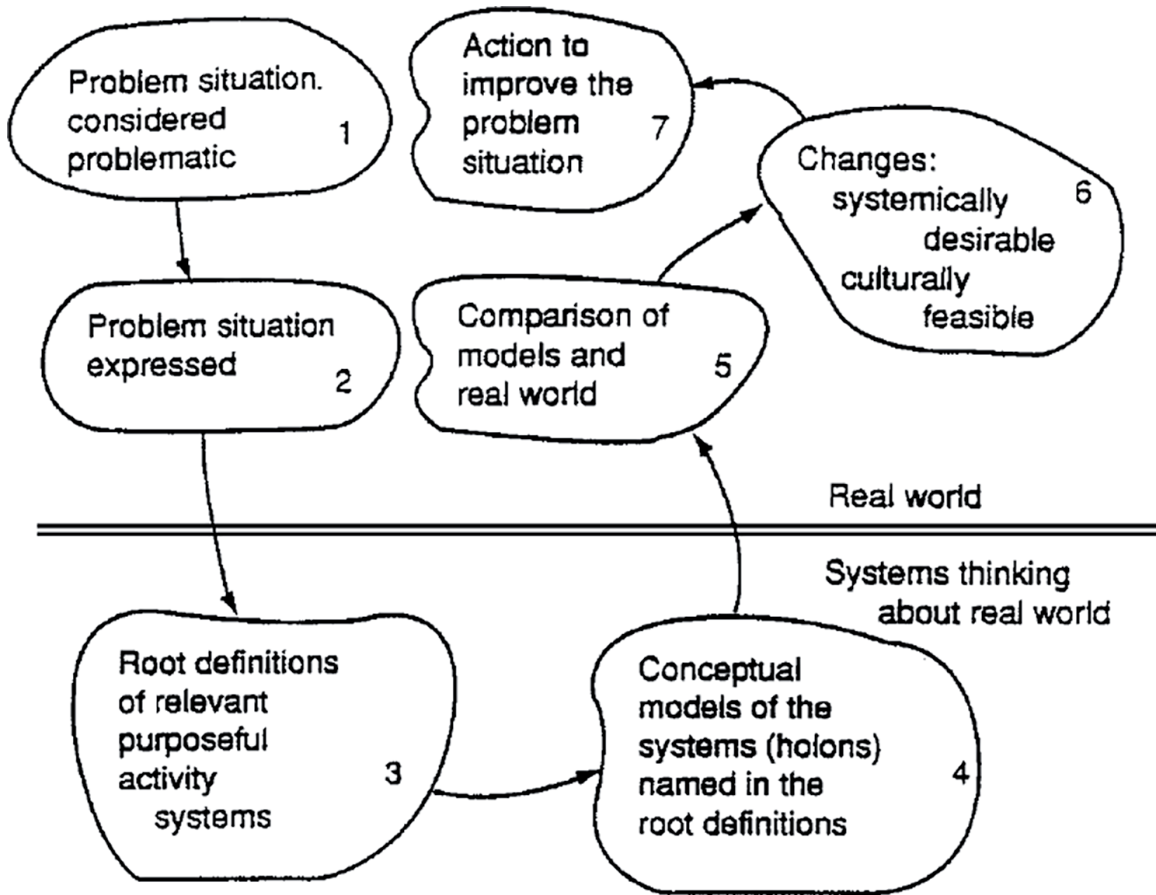


Figure 1. The seven-step process in classical soft systems methodology adopted from Mingers [47].

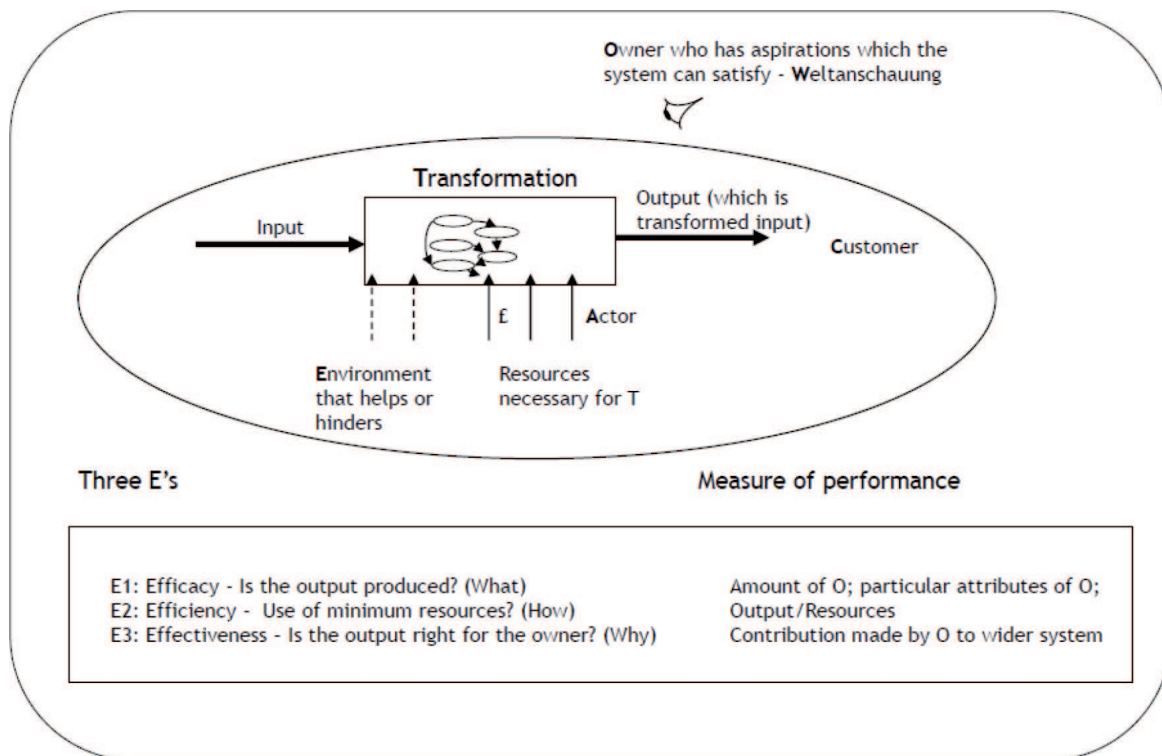


Figure 2. CATWOE analysis. Adopted from Wang et al. [48].

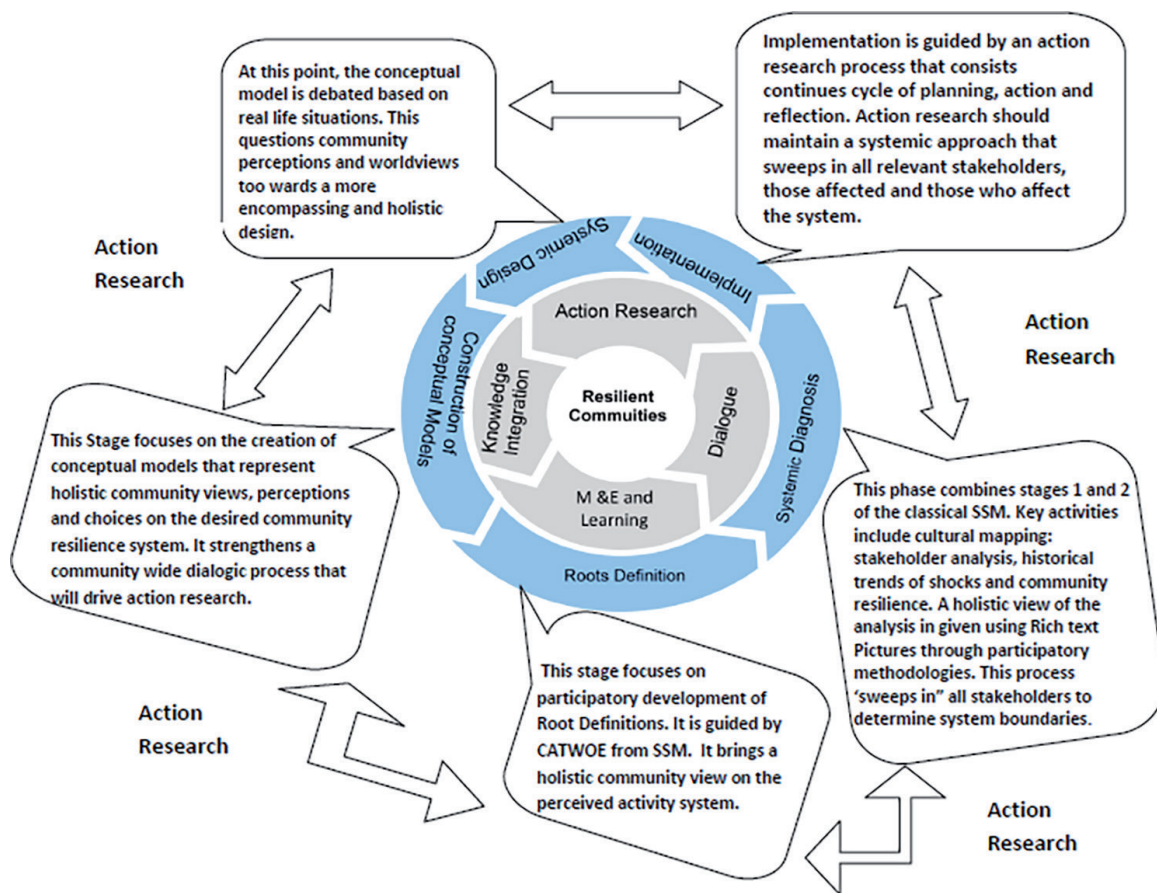
Stage 4 is the construction of conceptual models that present holistic stakeholder perspectives about the desired system and associated human activities. It prepares for the dialogical process that will take place during the implementation of SSM-based interventions. For each root definition, the analyst makes a conceptual model. The conceptual model is the structured set of activities that logic requires in a system, defined in the root definition. Stage 5 compares the conceptual model with the real-world problem situation. It provides a dialogic process and debate on the perceived situation and an opportunity for stakeholders to critique their assumptions. Stage 6 determines the desirable and feasible systemic changes. Checkland [45] identifies three types of changes: structural, procedural, and attitudes. Within the rural development discourse, structural might refer to community groupings, communication, social capital, and functional responsibilities. Procedural will include community and other stakeholder modes of operation, while attitudes include changing mental models, and practices. Stage 7 is the implementation stage and outlines the implementation strategy, resources, and skills requirements. According to Mingers [47], in practice, these steps are not taken sequentially and some may be omitted and combined.

## 6. Methodology

This paper utilised (a) experiential knowledge and expert experience from action research by the author based on more than a decade of engagement in rural development facilitation in Zimbabwe and (b) document reviews. The experiential knowledge was acquired through an action research process where the author engaged in action research between 2002 and 2014, under the WK Kellogg foundation programs as a development facilitator in Manicaland Province of Zimbabwe. Experiential knowledge is based on a participative inquiry paradigm and grounded in the belief that experiential encounter with the presence of the world is the ground of our being and knowing [49]. It assumes the creative shaping of a world through the transaction of imaging it, perceptually and in other ways. Experiential knowing thus articulates reality through inner resonance with what there is, and through perceptually enacting its forms of appearing. It further asserts that to experience, anything is to participate in it and to participate in both to mold and to encounter, hence experiential reality is always subjective/objective. Document review included reviewing the literature on systems thinking and rural development facilitation.

## 7. Results and discussions: developing a systemic programming framework for community resilience

This paper adopts theoretical constructs from soft systems methodology to develop a community resilience programming framework. The proposed framework is illustrated in **Figure 3**. It incorporates principles from SSM and pillars from action research based on experiential knowledge by the author. The framework adopts a project cycle-based typology with two interrelated cycles (**Figure 3**). The outer cycle highlights the key components based on SSM while the inner cycle proposes key pillars for effectiveness of the programming framework. It should be highlighted that these cycles should be integrated and implemented simultaneously. The proposed components of the framework are detailed in the proceeding sections.



**Figure 3.**  
*The proposed systemic programming framework.*

### 7.1 Systemic diagnosis

This phase focuses on a holistic diagnosis of key resilience issues within the community. It is holistic in the sense of ‘sweeping in’ representatives of all stakeholders and community groupings as well as understanding interactions and synergies among various actors. Unlike most fragmented projects that select specified beneficiaries, system boundaries are stretched to incorporate different worldviews. A number of variables are mapped in the process including cultural history, stakeholders and their roles, community perspectives on resilience, historical trends of major shocks and coping strategies, and the role of social capital, among others. The process aims at capturing a wide range of perspectives and choices. It brings the real world and unstructured community perceptions on adaptive, absorptive, and transformative capacities. Experiences from action research highlight a few critical factors that might negatively affect such a holistic mapping process.

Firstly, most communities in Zimbabwe are polarised due to political defenses and past interactions with non-governmental organisations (NGOs) and other funding partners. Experiences by the author in Chimanimani District for example identified biases in beneficiary selection on the basis of political affiliation. On the other hand, participation in the different programs creates ‘camps’ between those selected and those left out. Such divisions often affect knowledge sharing and participation in local development activities. Other factors include local leadership wrangles and power dynamics as well as perceptions that participation in NGO activities need to be rewarded. Some cultural beliefs may affect participation by women. Dwindling

confidence in NGO work in some sections of rural communities due to previously unsustainable projects may affect commitment by some community members.

The diagnosis process is conducted using rich text pictures (RTPs). An example of a TRP is given in **Figure 4**. The essence is to provide different perceptions, world-views, and proposed actions on resilience within the community. Such diagrams could ideally be done at the village level and later consolidated at the Ward level through dialogue and participatory techniques for a more holistic view. The present is an unstructured description of issues on shocks and resilience within the community.

## 7.2 Developing root definitions

Root definitions are statements that present an ideal system with regards to relevant stakeholders, community actors, the perceived transformation process, world views, and endogenous and exogenous environmental factors. It should clearly highlight the required community-wide transformation process required to build resilience. It should be guided by inputs from the systemic diagnosis process in the preceding section. Root definitions should incorporate the three capacities of resilience (adaptive, absorptive, and transformative). An example of a root definition could be: “*A community led resilience building process for improved livelihoods*”. Experiences from community planning and reflection exercises during action research suggest that such a process should start at the village level. A ward-level approach would complicate the visioning process since villages have; different resource endowments, different visions, and worldviews due to different leadership styles by the traditional leadership and have engaged in different development programs due to heterogeneous engagement by various NGOs leading to different levels of appreciating rural development approaches. Experience has also shown that a lot of communities are “over researched” and have gone through numerous planning activities hence it is important to take cognisance of their existing plans. Clear root definitions should be set incorporating community actors, key stakeholders, possible endogenous and exogenous factors that will impact the transformation process.

## 7.3 Construction of conceptual models

These models illustrate the relationships among the various elements defined in the root definitions. They define activities that the system must implement to achieve the proposed transformation. It is important to note that conceptual models define the process and not the methods applied. These models must be as holistic as possible to ‘sweep in’ all relevant stakeholder views. They should show interactions and synergies (both positive and negative) of various elements. Communities in most rural areas in Zimbabwe have gone through different shocks/hazards and have developed their own coping mechanisms. The construction of conceptual models should, as much as possible, elicit tacit knowledge from these situations.

Conceptual models are normally represented in the form of bubble diagrams with activities enclosed in bubbles. The bubbles link each other through arrows that depict dependencies (positive and negative). They should demonstrate an ongoing purpose for improving community resilience, a means of assessing performance, decision-making processes, components that are sub-systems, an environment, continuity, and required resources. **Figure 5** shows examples of conceptual models.

The development of conceptual models should also be done at the village level. Experience from Action research indicates that such planning processes need to be

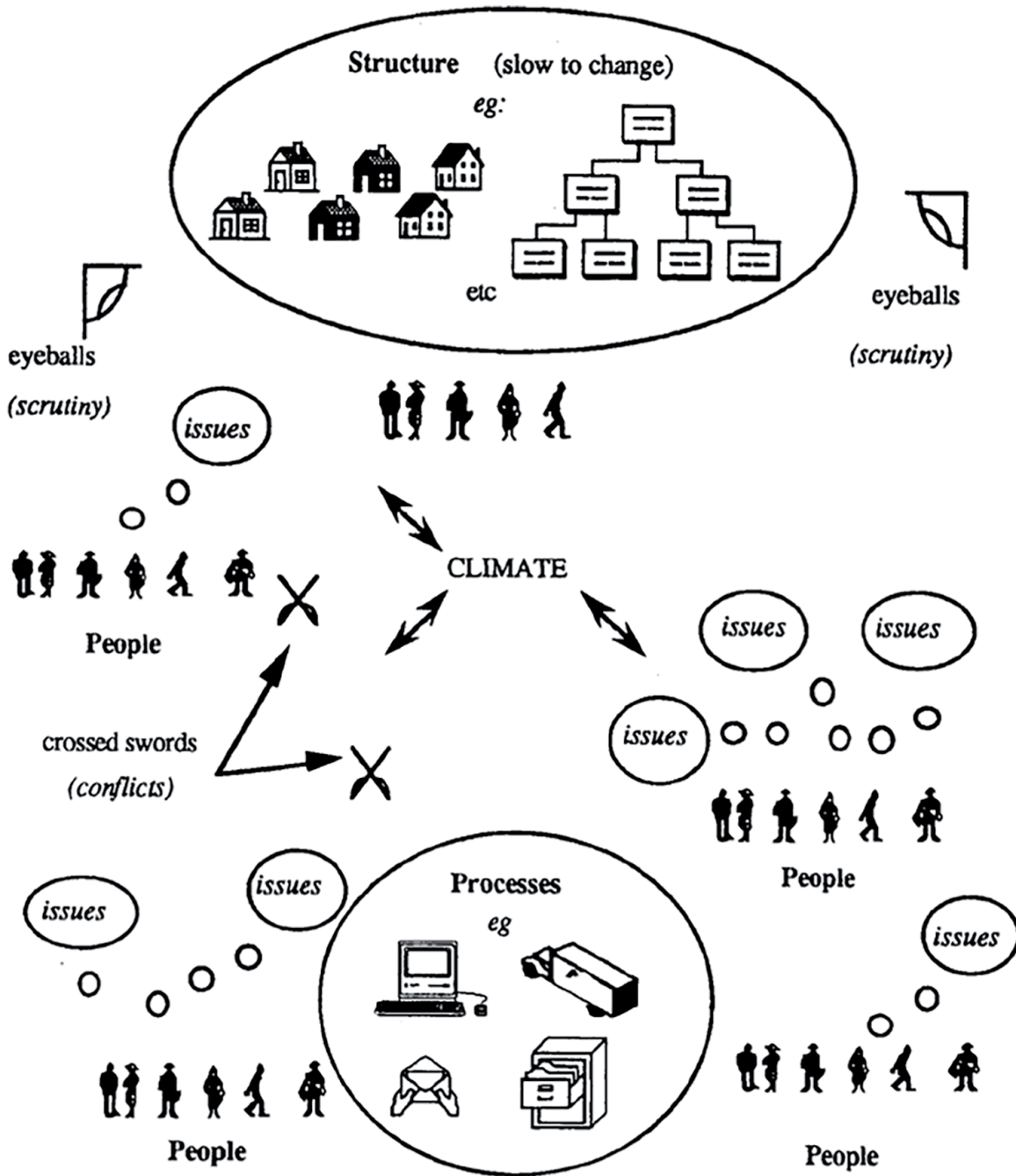


Figure 4. Example of a rich text picture. Adapted from Patching [50].

conducted properly to manage reticence by some community members. Facilitators need to understand community dynamics that affect effective participation. Women for example may not participate effectively around men. Facilitators must be creative and adopt participatory methodologies that elicit the views of all stakeholders involved in the process. There might be need, for example, to form development groups, have separate inputs, and then conduct a village-wide process of consolidating the conceptual models.

#### 7.4 Systemic design

This is an iterative process that focuses on comparing the conceptual models with the real-life situation from the unstructured problem presented in the rich text

pictures. The conceptual and the real situations are compared to come up with realistic interventions. This process should ideally be facilitated at the village level with the participation of all key stakeholders through community-wide dialogue. This process can be replicated in other countries with similar socio-cultural conditions, particularly southern African countries such as Malawi, Mozambique, and Zambia. From action research experience, such a process can be challenging as village-wide dialogue has

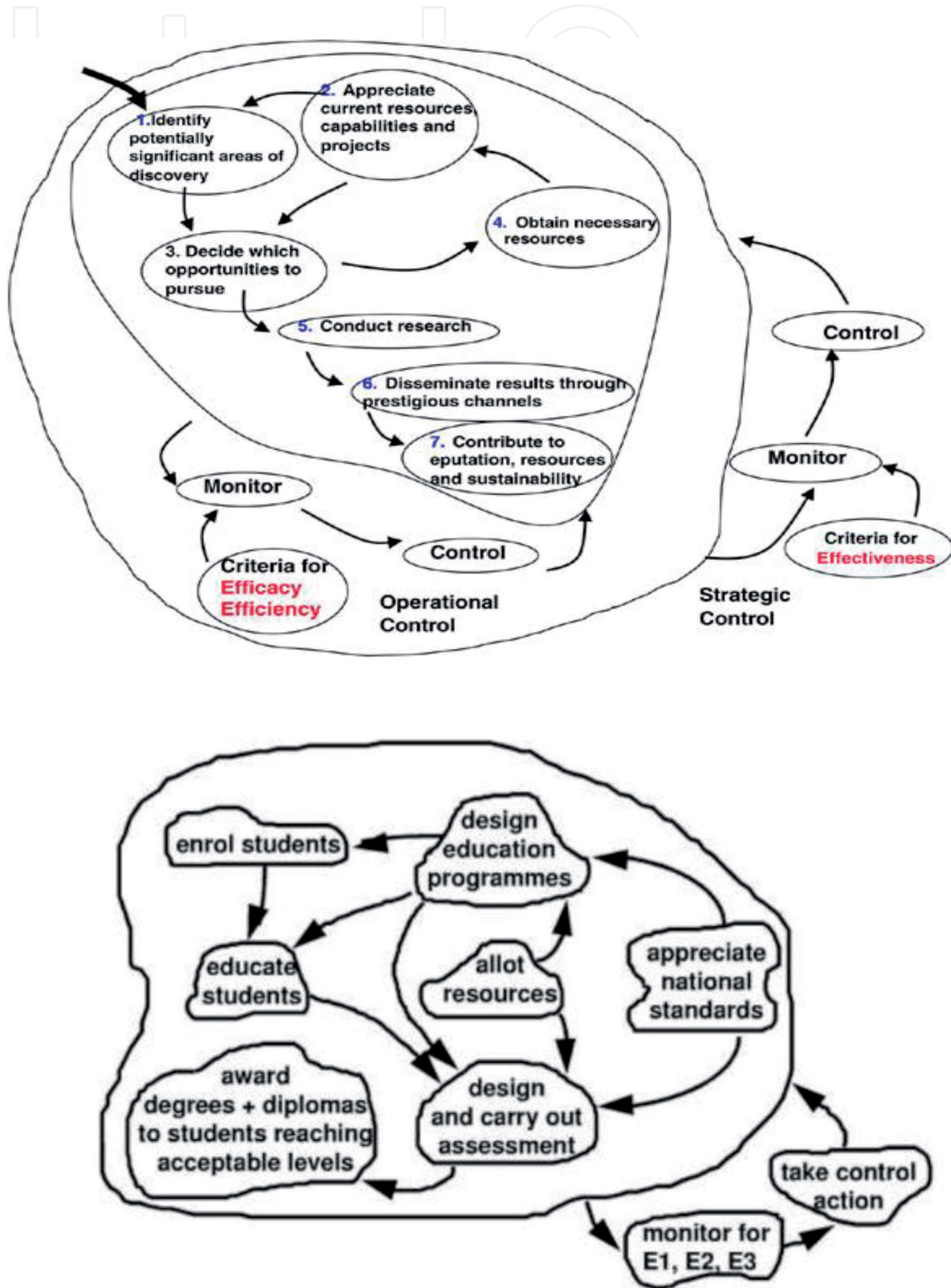


Figure 5.  
 Example of a conceptual model (<http://users.actrix.co.nz/bobwill/ssm.pdf>).

a number of challenging factors including breaking the ‘conspiracy of silence’ where community members won’t share knowledge and information as some perceive their tacit knowledge as inferior to technical expertise knowledge; gender and cultural dynamics where in some cases, certain community members’ contributions are regarded as inferior; de-politicking community dialogue; and detangling NGO specific forums. The latter normally stems from NGOs competing for space and developing their own forums. The comparison of the conceptual model to the rich text pictures should be done activity by activity in a tabular format. The table will have several columns. These columns might include the following headings: activity; status (indicating if the activity is already being implemented); current challenges and coping mechanisms; measures of performance; recommendations; and comments. The facilitators should draw as much as possible from participatory planning tools such as community based planning (CBP).

### **7.5 Implementation of sustainable development**

The implementation process should be action research-oriented informed by contemporary extension approaches. According to Özçatalbaş [51], such an extension approach should utilize proven, accurate information based on research findings to improve welfare. This process will allow the delivery of information and knowledge to target groups for socioeconomic development. Rather than a pure development practitioner/ community member dichotomy, it should be based on a knowledge co-creation agenda. Such knowledge transfer should ideally be based on technology transfer within the current context of the fourth industrial revolution (4IR). Zimbabwean community members have been through numerous shocks; including droughts, and economic transitions among others. Extension and technology transfer through action research ensure that the implementation of the designed social activity systems engages a learning agenda. Experience shows that engaging Zimbabwean communities in action research have a key challenge in facilitating learning. There is a general belief by communities that rural development practitioners are more knowledgeable than communities and communities should learn from them. This poses a challenge for facilitators in changing this mindset to allow a knowledge-sharing agenda. In such instances, a tool such as appreciative inquiry, for example, was found to be effective in Chimanimani District during action research. The approach deviates from the traditional assumptions that community systems have inherent flaws that need to be fixed through problem solving and interventions. Rather than treating communities as problems, it focuses was placed on identifying positive capacities within communities which are the facilitators utilise to drive dialogue.

### **7.6 The strategic pillars**

The proposed programming frame has strategic pillars that enhance its effectiveness (monitoring evaluation and learning, action research, knowledge integration, and dialogue). As outlined in the preceding sections, these should not be treated as a stand but should be integrated and interweaved with the entire SSM cycle (**Figure 3**). Implementation of the strategy should adopt monitoring and evaluation mechanisms that enhance community empowerment and learning. Experience in Chimanimani District through action research shows that tools such as community based monitoring and evaluation (CBME) and community score cards, where communities are given skills enhance knowledge sharing, improve project performance and accountability of local institutions and stakeholders. As described in preceding sections,

action research, knowledge integration, and dialogue ought to be integral components of the proposed systemic programming framework.

## 8. Conclusion

This paper provides a framework for systemic programming for community resilience and sustainable community development in Zimbabwe. It is not a step-by-step programming manual but rather provides key tenets for researchers and development practitioners. The building blocks proposed are neither exhaustive nor prescriptive. Rural development is highly contextual, *thus*, tools and approaches to implementing the framework are not specified. This calls for creativity in the empirical testing of the proposed framework. Two research questions are addressed; what are the critical components of a systemic programming framework for livelihoods and resilience? And, how is such a framework facilitated in practice? The components of the proposed systemic programming framework are systemic diagnosis, roots definition, and construction of conceptual models, systemic design, and implementation. These are supported by four strategic pillars; monitoring, evaluation, and learning; knowledge integration; action research, and dialogue. It is recommended that the systemic framework be tested empirically, and its components become part of resilience programming in Zimbabwe.

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