

USING PARTICIPATORY APPROACHES TO IMPROVE ENVIRONMENTAL SUSTAINABILITY IN SELECTED PARTS OF ZAMBIA

Mulungushi University Multidisciplinary
Journal

Vol. 2 no. 1

© Mulungushi University 2021

<https://research.mu.ac.zm/research/index.php/mu>

Daniel L. Mpolomoka

mpolomokadl@gmail.com

Zambian Open University,
Department of Adult Education,
School of Education

Abstract

Environmental sustainability discussions are becoming much more prevalent in local communities in Zambia and world over. For example, in Zambia citizen committees and paid coordinators are now commonplace in provinces, districts, cities and towns. Many people are even becoming interested in climate change, an issue that pretty recently would have been considered something that the central government alone would be left to solve. The paper seeks to; establish participatory approaches relevant to environmental sustainability, describe how organisations use participatory approaches to improve environmental sustainability and determine key issues for consideration when using participatory processes based on the framework of the capacity approach. This inquiry used a prospective research design and descriptive research methods, targeting participants chosen using convenient sampling technique and snowballing. Its findings were descriptively and thematically analysed. Revelations of this paper point to progressive community engaged interdisciplinary, integrated approaches, bringing together the social with technological and scientific fields of practice, providing a setting for creative investigation and response.

Keywords

Environment, Community, Development, Participation

INTRODUCTION

Environmental sustainability discussions are becoming much more prevalent in local communities in Zambia and world over. For example, in Zambia citizen committees and paid coordinators are now commonplace in provinces, districts, cities and towns. Many people are even becoming interested in climate change, an issue that pretty recently would have been considered something that the central government alone would be left to solve. community is examined as the focal point for establishing a commitment to environmental sustainability; and therefore, community dynamics play a central role in decision-making. Based on the notion of community as core, a model of environmental sustainability education, which reflects both an interdisciplinary orientation and experiential education, is introduced. Interdisciplinary models connecting the university to community and environmental sustainability are discussed where community is seen as central for environmental sustainability.

Academic institutions, as members of the community, are core to educating citizens, professionals, innovators and solvers. They can also play a role in the co-creation of community change by contributing research, technical, and human resources along with emerging knowledge. This explains why Boyer (1996) contends that universities committed to community engagement establish reciprocal partnerships that

improve the creativity and responsiveness of both. Through collaborative interchange, the academy becomes a more vigorous partner in the search for answers. The community provides a context for civic discourse and the reciprocal, interactional creation of knowledge. Community engaged education establishes the context for the exploration of pressing and complex problems, of which environmental sustainability is an example. Out of this reciprocal need comes the development of a model for interdisciplinary education that centers community as the context for learning. This model represents the theoretical and physical space where the university joins with others to address complex issues.

OBJECTIVES

1. Establish participatory approaches relevant to environmental sustainability.
2. Describe how organisations use participatory approaches to improve environmental sustainability.
3. Determine key issues for consideration when using participatory processes based on the framework of the capacity approach.

STATEMENT OF THE PROBLEM

Environmental sustainability has become a prominent global issue with many groups now working to develop plans about the use and preservation of natural

resources (Scerri, 2009). Much of the study on the environment tends to be grounded in the physical and biological sciences and technology driven, but new approaches to sustainability also examine the role of human relationships as critical factors in reaching the goals for environmental sustainability (Stocker & Kennedy, 2009). It is against this background that this study explored how communities use participatory approaches to improve environment sustainability.

RATIONALE

Revelations of this paper result into community engaged interdisciplinary, integrated approaches, bringing together the social with technological and scientific fields of practice, provide a setting for creative investigation and response.

What is interesting is that in working across disciplines, multiple lenses are focused on the complexity of environmental issues, providing learners the rarest opportunity to access diverse methodologies for assessing environmental decisions. This is the focus of Interdisciplinary approaches. Interdisciplinary approaches focus on the development of boundary-crossing skills and integrated knowledge building (Spelt, Biemans, Tobi, Luning & Mulder, 2009) with the potential to transform community interaction with the environment. The potential exists to expand critical analysis and complex knowledge development as the lenses of multiple disciplines are brought to the process. Further, two benefits result from this: firstly, interdisciplinary models such as the Model for Environmental Sustainability Education presented here bring the resources of the university to the community and invoke community as the focus for engaging teams of students in problem solving and creative development. These models require rethinking the structure of the curriculum and highlight the need to move beyond disciplines and university boundaries. Secondly, students learn as they move from personal examination to the exploration of local and global issues. College/community centers provide learning labs with the potential to prepare graduates to work holistically in approaching the complexity of the dilemmas they will be facing.

PHILOSOPHICAL UNDERPINNING

This paper is anchored on multidisciplinary reasoning that give birth a broad spectrum of approaches that are participatory in nature but embrace participatory approaches to environmental sustainability herein being debated.

In response to the increasing complexity of community life and challenges, that have given rise to the current discussion of participatory approaches to environmental sustainability, many multidisciplinary theories, conceptual frameworks and models come into play, many rooted in empowerment practice (Shulman, 2009). Included in these are consensus

organizing (Ohmer & DeMasi, 2009), capacity development (Cnaan & Rothman, 2008), applications of the strengths perspective (Saleebey, 2009), community resiliency (Kulig, Edge, & Joyce, 2008), community empowerment (Miley, O'Melia, & DuBois, 2009), asset building in communities (Han, Crinstein Weiss, & Sherraden, 2009), micro-enterprise and micro-credit (Yunus, 2006), and community capacity (Huebner, Mancini, Bowen, & Orthner, 2009).

Employing participatory approaches to environmental sustainability require integrative, comprehensive, collaborative, participatory, strengths and asset focused, founded on building capacity, sustainable, empowerment focused, focused on the present with an eye on the future, and inclusivity (Mizrahi, 2009).

By and large, the researcher did not set out on this study with my theoretical framework in mind. It was the quest for answers that deepened the researcher's questions and led to the theoretical framework, not the other way around.

This theoretical conceptualization along with the method of inquiry led the researcher to participants with experience. It guided the questions that were asked them to target their thoughts and actions aimed at tapping participatory approaches to environmental sustainability in the targeted communities. And throughout data analysis, the theoretical conceptualization guided the researcher find instances of critical and uncritical praxis. Another principle of qualitative research as stated by Watson-Gegeo (1988) is that

“the researcher's theoretical framework precedes data collection. Theory guides data collection and interpretation and helps the researcher to decide what is significant for answering research questions which have been posed at the onset of the study but are being developed throughout the study as well.”

METHODOLOGY

Research Design

This inquiry used a retrospective research design and descriptive research methods. Retrospective research was used because it helped benchmark, bring to the fore activities, projects, programmes and practices in environmental sustainability in communities in the areas of interest in this paper. This is advanced by Dean R Hess (2004) who notes that:

A retrospective study uses existing data that have been recorded for reasons other than research. Many times investigators view retrospective studies as “quick and

dirty” because the data are quickly gleaned from existing records to answer a question. However, a well done retrospective study may not be quick and is definitely not “dirty.” Although a retrospective design is usually discouraged when a prospective study is feasible, a retrospective study can serve a useful purpose.

Population and Sampling

Project, community activities and related initiatives about the environment in targeted communities together with key informants were chosen using convenient sampling technique and snowballing. What

is interesting is that participant selection, rather than being driven by the need for a statistically representative sample, is usually purposive.

The Process of Data Collection

The researcher developed a conceptual model of information flow from the communities targeted in this research study to both prospective and retrospective databases, based on a review of the participatory approaches to environmental sustainability approaches literature. In establishing the model, the researcher searched the reference libraries among titles of environmental sustainability approaches, research methods on environment, sustainable development, and participatory approaches to development.

Table 1: Data Collection Methods

How data was collected	Self-reports by practitioners within communities and those directly involved with communities, direct observation, survey instrument, interview, others report, automated quality assurance and trend reports.
What types of data are collected?	Success stories (narratives), Trend Reports (activities, events, community engagements, government and non-governmental policy ratifications and implementations) adverse events, routine practices.
Method of entering data?	Traditional paper forms (free text/narratives), internet (including e-mail), other computer devices (PDA), Telephone, Mobile Phone (Social Media Network-Whatsapp)
Purpose of data collection?	Educational purposes; Inform Communities, Policy makers, NGOs, Government and Line Ministries, Community improvement, Research

DATA ANALYSIS

Findings were descriptively and thematically analysed. Here, the data attributes were described in sufficient detail to determine whether there was a good rationale for using the data source, the data source’s overall generalizability and how the findings can be interpreted in the context of their own organization. This process was largely inductive in approach, paved way for insights and findings to emerge throughout the data collection and analysis process.

Human factors engineering techniques, including heuristic analysis, expert reviews and situation awareness probing were used in data analysis (Wickens, Gordon and Liu, 1997; Perrow, 1984; Klein, 1998). The use of Human factors engineering techniques in this study was supported by Koro-Ljungberg and Douglas (2008) who present an analysis of *Journal of Engineering Education (JEE)* articles which use qualitative methods. The articles give insight into the emerging departure that now

locates discussion about research methods in a wider dialogue of methodology.

Corrections were constantly made by referring back to the original data source. Generalizability was characteristically not the objective of this research, instead the researcher aimed to produce generalizability in the context of the study, placing the responsibility on the reader to determine transferability to other contexts (Lincoln & Guba, 1985).

FINDINGS AND DISCUSSION

Participatory approaches relevant to environmental sustainability

Participatory methods and techniques have become central tools for community development. These methods have been applied in a variety of contexts and sectors, including livestock management, village health promotion, and environmental sustainability. Participatory approaches to development are promoted

on the basis that they support effective project implementation and enhance the well-being of the poor.

Participatory approach is one in which everyone who has a stake in the intervention has a voice, either in person or by representation. Chambers (2002) states that, staff of the organization that will run it, members of the target population, community officials, interested citizens, and people from involved agencies, schools, and other institutions all should be invited to the table. In other words, everyone's participation should be welcomed and respected, and the process should not be dominated by any individual or group, or by a single point of view.

In any developmental project, if particular individuals or groups are left out, disrespected and not invited to participate, the planning process may be a rubber stamp and the participatory process can cause many problems. Therefore, each participant becomes an important contributor to the planning process.

A true participatory approach is one in which everyone's perspective is considered. That does not mean that people cannot challenge others' assumptions, or argue about what the best strategy might be. It does mean, however, that everyone's thoughts are respected, and it is not necessarily assumed that the professionals or the well-educated automatically know what's best. Everyone actually gets to participate in the planning process, and has some role in decision-making (Redclift, 1992).

Over the years, a large number of participatory approaches have been developed to meet the needs of different disciplines, settings and objectives. Basically, there are five approaches deemed useful in ensuring environmental sustainability.

The first approach is Rapid Rural Appraisal (RRA). It is used to obtain information in a timely, cost-effective, accurate and insightful manner as a basis for development planning and action. Chambers (1994) states that it is a qualitative survey methodology in which a multi-disciplinary team is used to formulate problems for agricultural research and development. He further describes it as a fairly-quick and-fairly-clean appraisal, as opposed to the fast and careless studies (he calls them 'quick-and-dirty' studies) and the slow and excessively accurate approaches ('long-and-dirty').

Rapid Rural Appraisal is guided by a refined set of principles that require knowledge and skill to apply. Researchers are expected to carefully balance the quantity, relevance, accuracy and timeliness of the information acquired, as well as optimize actual use of the data collected, (Ison and Ampt, 1992). The researcher should also use more than one

technique/source of information (triangulation) to cross-check answers and undertake research as part of multi-disciplinary teams so as to increase the range of information collected.

The Rapid Rural Appraisal should be conducted in a relaxed manner that emphasizes creativity, curiosity, and conscious exploration. RRA should be undertaken on an iterative basis through the flexible use of methods, be open to improvisation, take advantage of opportunities as they arise and cross-check findings. Learning from and with local people should be applied. This means learning directly, on-site, and face-to-face, gaining from indigenous physical, technical and social knowledge. Farmers' perceptions and understanding of resource situations and problems are important to learn and comprehend because solutions must be viable and acceptable in the local context, and because local inhabitants possess extensive knowledge about their resource setting.

The second approach is Participatory rural appraisal (PRA). This is an approach used by non-governmental organizations (NGOs) and other agencies involved in international development. The approach aims to incorporate the knowledge and opinions of rural people in the planning and management of development projects and programmes.

The approach is a more efficient and cost-effective way for outsiders to learn about communities, and particularly about environmental systems, than through classical techniques such as large-scale social surveys or brief rural visits by urban professionals. Conway (1987) emphasises that Participatory Rural Appraisal (PRA) consists of a series of techniques for 'quick and dirty' research undertaken in the belief that the results generated, while of less apparent precision, will have greater evidential value than classic quantitative survey techniques. The method does not need to be exclusively rural nor rapid, but it is economical of an outsider researcher's time.

Participatory Rural Appraisal is a way of learning from, and with, community members to investigate, and evaluate constraints and opportunities and make timely decisions regarding development projects. It is a method by which a research team can quickly and systematically collect information for the general analysis of specific topic, question, or problem, needs assessment, feasibility studies, identifying and prioritizing projects, and finally, the project evaluation. The PRA tools are implemented to achieve increased accuracy at low costs both in terms of time and money.

Participatory appraisal methods are useful for accelerated knowledge, not just overall speed,

but rapid rounds of field relations that result in the increasingly precise knowledge (Theis & Grady, 1991).

The third approach is Participatory Rural Appraisal (PRA). According to Chambers (1993:953) PRA is defined as a family of approaches, methods and tools designed to enable local people to formulate and analyse their situation in order to plan, act, monitor and evaluate their actions.

The underlying concept is that local people are capable of analysing their own realities and that the outsiders do not dominate and lecture; they facilitate, sit down, listen and learn...they do not transfer technology; they share methods which local people can use for their own appraisal, analysis, planning action and evaluation" (Chambers, 1997). In other words, external experts are mere facilitators of the development process. Participatory Rural Appraisal (PRA) involves the direct participation of community members in rural planning using different techniques such as diagrams and maps.

The fourth Participatory approach is Poverty Assessments. This is used to understand poverty from the perspective of a range of stakeholders, particularly the poor. Participatory poverty assessment (PPA) is an iterative participatory research process that seeks to understand poverty from the perspective of a range of stakeholders, especially the poor, (Narayan, 1996). PPA provides an instrument for including poor people's views in the analysis of poverty so as to improve the effectiveness of public policy related to poverty reduction strategies.

The inclusion of poor people is important because the development and implementation of a given poverty reduction strategy will be more effective if the views of poor people are taken into consideration. Doing so should help ensure that initiatives address issues that the poor themselves consider important and are implemented through institutional channels that they value.

More specifically, PPA is a means to enhance conceptualization and understanding of the multi-dimensional nature of poverty and its causes. This requires not only a strong presence and participation of the poor but also an understanding of what the causes of poverty and deprivation are from the perspective of poor people. This approach improves participation, and provides for wider ownership for a broader cross-section of society particularly the poor.

The fifth approach is participatory action research (PAR). This approach is used to empower participants and enhance collaboration and expedites knowledge acquisition and social change. McCutcheon and Jung (1990:148) defines participatory action research as a

systemic inquiry that is collective, collaborative, self-reflective, critical and undertaken by participants in the inquiry.

In essence, PAR involves bringing people from various social and political contexts and backgrounds to identify, investigate and take appropriate action on conditions that affect them as community members. Kemmis and McTaggart (1990:5) add that it is a form of collective self-reflective inquiry undertaken by participants in social situations in order to improve the rationality and justice of their own social or educational practices, as well as their understanding of these practices and the situations in which these practices are carried out. Participatory action research is used to empower participants and enhance collaboration and expedites knowledge acquisition and social change.

Vivid scenarios of how participatory approaches are used to improve environmental sustainability

With growing complexities of environmental issues, public participation has come to the fore in academic analysis. Primarily, their coming in concerns the contemporary debates about environmental governance. Participatory approach stresses that public participation is a crucial element in environmental governance that contributes to better decision making. It is recognised that environmental problems cannot be solved by government alone, (Duplesis, 2008; Mpolomoka, et al, 2018).

Participation in environmental decision-making effectively links the public to environmental governance. By involving the public, who are at the root of both causes and solutions of environmental problems, in environmental discussions, transparency and accountability are more likely to be achieved, thus secures the democratic legitimacy of decision-making that good environmental governance depends on. Bulkeley and Mol (2003), argue that, a strong public participation in environmental governance could increase the commitment among stockholders, which strengthens the compliance and enforcement of environmental laws.

The right to participate in environmental decision-making is a procedural right that can be part of the fundamental right to environmental protection. From this ethical perspective, environmental governance is expected to operate within a framework coinciding the constitutional principle of fairness (inclusive of equality), which inevitably requires the fulfilment of environmental rights and ultimately calls for the engagement of public (Pring, and Noé, 2002).

Furthermore, in the context of considerable scientific uncertainties surrounding environmental issues, public participation helps to counter such uncertainties and bridges the gap between scientifically-defined

environmental problems and the experiences and values of stakeholders (Fischer, 2000). Through joint effort of the government and scientists in collaboration with the public, better governance of environment is expected to be achieved by making the most appropriate decision possible.

Governments, communities, Non-governmental organisations, companies, both for production and services, are increasingly addressing problems related with environment. In particular, they accept the challenge of mobilizing citizens and more generally society to act sustainably. In fact, the actor's involvement, such as research institutes, local authorities, companies, businesses, investors and civil society is needed to accelerate the transition toward a sustainable society. The concept of public involvement implies the active involvement of people in planning processes, in decision-making and activities towards environmental conservation and preservation.

The main objective of public involvement consists in engaging citizens by institutions (intended as formal organizations of government and public administrations such as: municipalities, provinces, districts) to discuss problems and suggest alternatives or solutions in environmental issues which affect their quality of life. Participation bottom-up processes and inclusive governance, allows increasing collective awareness about environmental issues, and force Institutions to incorporate greater transparency into their regulations and policies.

Public participation can be defined as “forums for exchange that are organized for the purpose of facilitating communication among government, citizens, stakeholders and interest groups, and businesses regarding a specific decision or problem. This is a democratic and transparent process that leads to higher compliance since citizens accept the outcomes as a product of the democratic values (Ananda and Herath, 2003).

The results of participation deeply depend on the used participatory methods and by other factors, such as the expertise of facilitators, the participants' level of education, their knowledge. Participation can be implemented as a process of consultation, in which different levels of knowledge meet each other, but remain fundamentally separate.

Participation allows citizens to build their own opinion and to criticise the information produced by the media that sometimes provide them with piecemeal information necessary to assess the social, environmental and political conditions of a country (Mpolomoka, et al, 2018).

Community involvement is also important to select and choose relevant indicators for improving

environmental monitoring and management. This provides databases that reflect local values, and on which specific management decisions can be made. Community participation for selecting relevant indicators gives some benefits.

Indicators chosen by local input will measure what is locally important unlike those chosen by experts. Regular community input should also ensure indicators evolve over time as circumstances change, (Carruthers & Tinning, 2003), and allow projects to continue after funding stops.

In 1995 Zambia established a Constituency Development Fund (CDF), a fund granted to constituencies to support micro-community projects, as part of a wider decentralization and local development policy. Community-based projects funded under the CDF are meant to serve community needs in the constituencies and to have long-term positive effects on people's well-being. Projects that can be funded under the CDF include: Construction and rehabilitation of wells and boreholes, Construction, rehabilitation and maintenance of roads, Agriculture: irrigation, livestock, Rehabilitation of education facilities, Rehabilitation of health facilities and Education programmes such as literacy programmes (Local Government Act, 1991).

The Ministry of Local Government and Housing receives the funds from the Ministry of Finance and allocates them to the respective councils. The amount for each constituency is the same, regardless of size and number of inhabitants. The funds for the CDF come from government ordinary revenues and thus the amount of the CDF is based on the annual budget forecast. Each constituency receives the same amount of money. All councils are mandated to include CDF in their annual capital budgets and are required to account for such funds in accordance with the law.

In communities in Ndola District, there are Ward Development Committees which are sub-district local government structures established to facilitate community participation in decision-making and development planning processes at the ward level. They are the linkages between the District and communities and are involved in resource mobilisation and project prioritisation for inclusion into district strategic development plans. Communities and their representatives should be openly communicated with by the council when it is time to submit project proposals for CDF funds. This is usually done through open meetings, posters in popular locations such as the notice boards of schools, clinics and churches, as well as letters to chiefs, village headmen, and the Area Development Committees (ADC).

The communities together with the ADC then identifies projects that meet local needs. After

prioritizing projects, the ADCs send the project proposals to the Constituency Development Committee (CDC). The CDC is the central management authority of CDF, (Malama, 2012).

The development committees apply participatory approaches in the implementation of the project. All the members of the local community are involved because they have a right to play an active and influential part in shaping decisions which affect their lives and that people affected by environmental issues should participate together at every stage of local action on environmental issues.

The committees use 'participation by consultation method'. This approach aims to supply skill and knowledge. It is used by decision makers to look for advice, information and opinions about strategies, policies and services. It aims to consult and communicate with local people and stakeholders in order to understand the needs and to work towards a common outcome. Local people are encouraged to be involved by decision makers to facilitate a best accepted outcome about issues that affect their lives. They are further invited to play an active role in generating ideas starting from which a comprehensive set of options can be developed as well as decisions can be taken together with public administrators.

The ward development committee also empowers people. Once the capacity of individuals or groups has been increased, the local people will be able to make choices and then transform those choices into desired actions and outcomes.

The Ward development committee uses the 'functional participatory approach' as well. This approach encourages meaningful community participation by enabling that people affected environmental issues have an entire and influential say in the decisions that impact on their lives.

The approach values local knowledge and experience. People living in a local community have expert knowledge of how the environment affects and is affected by their community and way of life. As their livelihood often depends on the state of the environment, they will be motivated to sustain it.

The committee members meet each other to exchange viewpoints, develop visions for the future of their community and propose ways to overcome the obstacles that hinder the transition towards sustainable development models. The advantage of using these methodologies is the high degree of formalization of the process corresponding to a high degree of legitimacy of the same.

The committees allows an inexpert public to participate in decisions that affect complex issues such as the environment. In general, committees work side

by side with local authorities, providing them with social support in the decisions. The main advantages are: the access to technical information and the ability to discuss evidence and issues.

Another method that the Ward Development Committee uses is Participation by Negotiating. This approach aims to reduce conflicts and to achieve a compromise. In the negotiation process there is a participation of the interest group representatives, but not the wide participation of population. Negotiation consists of a dialogue between two or more people or parties. It is intended to reach an understanding, resolve points of difference produce an agreement upon courses of action, negotiate for obtaining advantage, satisfying different interests of involved parties in negotiation process. The method is useful as a means to resolve conflicts related to political and technical choices.

Local communities are more responsive to participatory approaches than institutions or the projects themselves. Participatory project approaches need new management styles, a flexible internal organization and sufficient space for feedback, discussion and analysis.

The participatory approaches facilitate this process of local empowerment by creating opportunities for specific disadvantaged groups, such as women or the landless, to have access to external resources (training, credits) or to mobilize their own resources (organization, knowledge, skills). This enhances their capacity to take action to defend their own interests.

Participatory planning approaches aim at strengthening the local capacity for sustainable development in terms of knowledge, skills and organization. One of the important ways to ensure that local capacity is improved is through the recognition of the appropriateness of local knowledge in designing project actions.

The use of participatory approaches will allow the integration of local knowledge systems into local project planning and implementation. The project then complements these knowledge systems with technical support for the development of appropriate technical menus. Therefore, in particular during the planning process, emphasis should put on the mutual assessment and mobilization of local knowledge and management systems.

Participatory planning facilitates a two-way learning process between the local community and the project. This two-way learning process should facilitate the timely adjustment of project support services to changing local realities. Similarly, it should strengthen local capacity to identify and mobilize local as well as external resources needed to undertake sustained

actions. Participatory planning will enhance political commitment and institutional support for local planning by building a common understanding between institutions and local groups.

Key issues for consideration when using participatory processes with the framework of the capability approach

The capability approach is a broad normative framework for the evaluation of individual well-being and social arrangements, the design of policies and proposals about social change in society.

The capability approach is used in a wide range of fields, most prominently in development thinking, welfare economics, social policy and political philosophy. It can be used to evaluate a wide variety of aspects of people's well-being, such as individual well-being, inequality and poverty. Fukuda-Parr (2003) states that, it can also be used as an alternative evaluative tool for social cost-benefit analysis, or to design and evaluate policies, ranging from welfare state design in affluent societies, to development policies by governments and non-governmental organisations (NGOs) in developing countries. In academia, it is being discussed in quite abstract and philosophical terms, but also used for applied and empirical studies. In development policy circles, it has provided the foundations of the human development paradigm.

The core characteristic of the capability approach is its focus on what people are effectively able to do and to be, that is, on their capabilities. A focus on people's capabilities in the choice of development policies makes a profound theoretical difference, and leads to quite different policies compared to neo-liberalism and utilitarian policy prescriptions.

Sen (1993), argued that in social evaluations and policy design, the focus should be on what people are able to do and be, on the quality of their life, and on removing obstacles in their lives so that they have more freedom to live the kind of life which, upon reflection, they find valuable: "The capability approach to a person's advantage is concerned with evaluating it in terms of his or her actual ability to achieve various valuable functioning as a part of living.

The capability approach views people as participants and agents of development. It takes into account the diversity of values across individuals and groups. Furthermore, approach helps make researchers and other stakeholders aware of group disparities (such as those based on gender, class, race, ethnicity, sexual preference and others), and capability disparities that exist between communities and nations.

Within the capability approach, participation is put at the centre of development. However, the type of participation used in addressing a problem such as sustainable environmental management (how people are engaged in this process) may or may not support an expansion of their capabilities. The effective involvement of people in their own development requires a clear understanding of the requirements for effective participation, and the potential limitations of this process (Deneulin, 2006).

The capability approach is a broad normative framework for the evaluation and assessment of individual wellbeing and social arrangements, the design of policies, and proposals about societal change. It can be used to empirically assess aspects of an individual's or groups' well-being, such as inequality or poverty. It can also be used as an alternative to mainstream cost-benefit analysis, or as a framework to develop and evaluate policies, ranging from welfare state design in affluent societies, to development policies by governments and non-governmental organisations in developing countries. It can also be used as a normative basis for social and political criticism. The capability approach is not a theory that can explain poverty, inequality or well-being; instead, it provides concepts and a framework that can help to conceptualize and evaluate these phenomena.

One of the key issues for consideration when using participatory process with the framework of capability approach is identification. Local people should identify and present their own priorities for development and get them incorporated into development plans. When identification has been done, planners can be more secure that this responds to a real need among local people. If outside planners impose as a solution, then the local people will not really be interested or committed to its development.

Within the participatory methodologies, the information is owned by the community and becomes a means through which local people can identify their needs and priorities, analyse what resources are available locally and externally and consider how various local groups and the entire community might access and manage those resources (Lincoln and Yvona, 1985).

With that information the, community members can individually and collectively identify and recognise their skills and also their needs and priorities. Once community priorities have been identified, participatory approaches become part of a strategy to support a local mobilisation process.

At most, with the help of some local people, a general assessment of constraints and opportunities to be

addressed through project interventions is made during project identification and formulation.

The identification and collection of sustainability indicators not only provide valuable databases for making management decisions, but the process of engaging people to select indicators also provides an opportunity for community empowerment that conventional development approaches have failed to provide.

Another key issue for consideration is interactive participation. People participate in joint analysis, which leads to action plans and the formation of new local institutions or the strengthening of existing ones. It tends to involve interdisciplinary methodologies that seek multiple perspectives, and make use of systematic and structured learning processes. As local people take control over the decision-making process, they gain a greater stake in maintaining the structures and practices they have established.

The other key issue for consideration is partnership. Through negotiation, power is redistributed between local people and power holders in an equitable manner. Decision-making takes place through an exchange between equally respected participants who are working towards a common goal and seeking to optimize the well-being of all concerned. There is mutual responsibility and risk-sharing in the planning and decision-making process.

Self-mobilization/active participation is also an important issue to be considered when using participatory processes with the frame work of the capability approach.

People participate by taking initiatives independent of external institutions to change systems. They develop contacts with external institutions for resources and technical advice that they need, but retain control over how resources are used. Such self-initiated mobilization and collective action may or may not challenge existing inequitable distribution of wealth or power

Participation by consultations should also be considered as a key issue. This is a two-way way flow of information in which local people participate by being consulted and external agents listen to their

views. Although participants have the opportunity to provide suggestions and express concerns, their input may or may not be used at all or as originally intended. The external agents define problems and solutions, both of which may be modified in light of information provided by the participants. Such a consultations process does not concede any share in decision-making and professionals are under no obligation to take on people's view.

Participation for material incentives is also an important issue for consideration. People participate by providing resources, for example labour, in return for food, cash, or other material incentives. Much on-farm research falls into this category, as farmers provide the fields but are not involved in experimentation or the process of learning. In this type of participation people have no stake in prolonging activities once the incentives end.

People can meet predetermined objectives related to the initiative by functional participation. Local people's involvement however occurs after major decisions have been made rather than at an early stage in the project cycle. The established groups are dependent on external initiators and facilitators, but over time may become more self-sufficient

CONCLUSION

Participation is consistent with a capability approach when it engages and enables people to be involved in the identification, assessment and addressing of the problems that challenge their ability to achieve the economic, social, political and ecological freedoms that define development.

Participatory approaches help identify the most viable local interventions for environmental change and improvement. The approaches also help to increase ownership and control by the local community which is an important component of sustainability. The approaches increase the effectiveness of activities because they can be tailored by a specific community or group to their own specific needs. It is through these approaches that sustainability is increased because people learn new knowledge and skills which allow them to carry on assessing, planning and acting to address environmental concerns (Thesis and Grady, 1991).

REFERENCES

Ananda, J. and Herath, G. (2003). Incorporating Stake holder values into regional Forest Planning: A value function Approach. *Ecological Economics*, *45* (1).

Boyer, E. (1996). The scholarship of engagement. *Journal of Public Service & Outreach*.

Bulkeley, H. and Mol, A.P.J. (2003). 'Participation and Environmental Governance: Consensus, Ambivalence and Debate'. *Environmental Values* *12* (2): 143–54.

Cnaan, R., & Rothman, J. (2008). Capacity development and the building of community. In J. Rothman, J. Erlich, & J. Tropman (Eds.), *Strategies of*

- comnn, nilij intervention (7th ed., pp. 243—262). Peosta, IA: Eddie Bower.
- Chambers, R. (1994). "Participatory rural appraisal (PPA): Challenges, potentials and paradigm. *Elsevier*, 22 (10).
- Chambers, (2002). *Participatory Workshops: A Sourcebook of 21 Sets of Ideas and Activities*. London: Routledge.
- Conway, G.R. (1987). The Properties of Agro ecosystem. *Agricultural Systems* 24.
- Dean, R. Hess (2004). Retrospective Studies and Chart Reviews. *Respiratory Care*, 49(10):1171–1174.
- Deneulin, S. (2006). *The Capability Approach and the Praxis of Development*. Basingstoke: Palgrave MacMillan.
- Du Plessis, A. (2008). 'Public Participation, Good Environmental Governance and Fulfilment of Environmental Rights.' *Potchefstroom Electronic Law Journal*, 11(2): 170-20.1
- Fischer, F. (2000). *Citizens, Experts and the Environment*. Durham, NC: Duke University Press.
- Fukuda-Parr, (2003). "Rescuing Human Development Concept from the Human Development Index," in Sakiko Fukuda-Parr and A. K. Shiva Kumar (eds.). *Readings in Human Development: Concepts, Measures and Policies for a Development Paradigm*. New Delhi: Oxford University Press.
- Han, C-K., Grinstein-Weiss M., & Sherraden, M. (2009). Assets beyond savings in individual development accounts. *Social Service Review*, 83, 221-244.
- Huebner, A. J., Mancini, J. A., Bowen, C. L., & Orthner, D. K. (2009). Shadowed by war: Building community capacity to support military families. *Family Relations*, 58, 216—228.
- Ison, R. and Ampt, R. (1992). Rapid Rural Appraisal: Participatory Problem Information Method Relevant to Australian Agriculture. *Agricultural Systems*, 38.
- Kemmis, S. and McTaggart, R. (1990). *The Action Research Planner* (3rd ed.). Geelong: Deakin University Press.
- Klein, G. (1998). Sources of power: how people make decisions. Cambridge, MA: The MIT Press.
- Koro-Ljungberg, M. and Douglas, E. (2008). State of qualitative research in engineering education: Meta-analysis of JEE articles, 2005–2006. *Journal of Engineering Education*, 97(2), 163–175.
- Kulig, J., Edge, S., & Joyce, B. (2008). Community resiliency as a measure of collective health status. *Canadian Journal of Nursing Research*, 40, 92-110.
- Lincoln, Y.S., and Guba, E.G. (1985). Naturalistic inquiry. Beverly Hills, CA: Sage.
- Malama, K. (2012). *The Utilisation of Constituency Development Funds (CDFs) In Kabwata: A Participatory Communicative Appraisal*.
- Miley, K., O'Melia, M., & DuBois, B. (2009). Generalist social work practice: An empowering approach (6th ed.). Boston: Pearson.
- Mizrahi, T. (2009). Community organizing principles and practice guidelines. In A. Roberts (Ed.), *Social workers' desk reference* (2nd ed., pp. 872—881). New York: Oxford University Press.
- Mpolomoka, D.L., Luchembe, M., Banda, S., Sampa, P., Ngambi, N.S. and Maria Lungowe Mundia (2018). Participatory Practice in Zambia: Pitfalls and Hopes for Tomorrow. *Asian Education Studies*, 3(3).
- Narayan, D. (1996). *Towards Participatory Research*. Washington, DC: World Bank Technical Paper No. 307.
- Ohmer, M. and DeMasi, K. (2009). Consensus organizing: A community development work book. Thousand Oaks: Sage Publications.
- Perrow, C. (1984). Normal accidents: living with high-risk technologies. New York: Basic Books.
- Pretty, J.N. (1994). Alternative systems of inquiry for a sustainable agriculture. *IDS bulletin*, 25 (2).
- Pring, G. and Noé, S.Y. (2002) 'The Emerging International Law of Public Participation Affecting Global Mining, Energy, and Resource Development' In Zillman, D.M., Lucas, A. and Pring, G. (eds.). *Human Rights in Natural Resource Development: Public Participation in the Sustainable Development of Mining and Energy Resources*. London: Oxford University Press.
- Redclift, M. (1992). The Meaning of Sustainable Development. *Geoforum* 25 (3).
- Saleebey, D. (2009). The strengths perspective in social work practice (5th ed.). Boston: Pearson.
- Sen, A. (1993). *Capability and Well Being*. London: Oxford University Press.

Scerri, A. (2009). Paradoxes of increased individuation and public awareness of environmental issues. *Environmental Politics*, 18(4), 467-483.

Spelt, E.J.H., Biemans, H.J.A., Tobi, H., Luning, P.A., & Mulder, M. (2009). Teaching and learning in interdisciplinary higher education: A systemic review. *Educational Psychological Review*, 21, 365-378.

Stocker, L. and Kennedy, D. (2009). Cultural Models of the Coast of Australia: Toward Sustainability. *Coastal Management*, 37(5), 387-404.

Theis, J. and Grady, H. (1991). *Participatory Rapid Appraisal for Community Development*.

London: Save the Children Fund.

Watson-Gegeo, Karen Ann (1988). Ethnography in ESL: Defining the essentials, *TESOL quarterly*. 22 (4), 575-592.

Wickens, C.D., Gordon, S.E. and Liu, Y. (1997). An introduction to human factors engineering. New York: Addison-Wesley.

Yunus, M. (2006). The Nobel Peace Prize 2006: Nobel lecture. *Lazy and Business Review of the Americas*, 23. Retrieved from [http:// I heinonline.org/HOL/ Page?handle=hein.journals / lbramrcal3&div 24&gsent=1&collection = journals](http://heinonline.org/HOL/Page?handle=hein.journals/lbramrcal3&div 24&gsent=1&collection=journals)