

**AN ASSESSMENT OF THE IMPLEMENTATION OF THE COMMUNITY
ENVIRONMENTAL MANAGEMENT PROGRAMME IN ZAMBIA:
A CASE STUDY OF LUANSOBE SETTLEMENT - MUFULIRA DISTRICT**

by

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PREFACE

This dissertation comprises two components. Component A consists of background to the research and includes the problem statement, aim and objectives. It also includes the literature review, which provides details on the concept of community-based natural resources management (CBNRM) and its benefits as a participatory approach adopted in the management of natural resources. Component B is presented as a research paper that complies with the requirements of the selected journal for purposes of publication shown in appendix I. Relevant information on the purpose of the study and background to the concept of CBNRM from component A is included in component B for purposes of the research paper. It also includes research findings, analysis and conclusions of the study.

CBNRM has been identified as a feasible participatory approach to natural resources management based on community needs and priorities. This research reviews the implementation of the Community Environmental Management Programme (CEMP) as a participatory approach adopted by the Zambian Government to address growing environmental concerns, with particular reference to deforestation, as a result of human activities. This study focuses on Luansobe settlement in Mufulira district, one of eight districts in which the CEMP is being implemented as a pilot project. Luansobe is located in the peri-urban area of Mufulira. The majority of the people living in the area are unemployed and live below the poverty datum line. These people are largely dependent on natural resources for their livelihoods. Unfortunately, some of the activities people are engaged in are having adverse impacts on the resources, in particular forest resources. The main sources of livelihoods are charcoal production and subsistence farming, which are contributing greatly to the deforestation of the surrounding Nsato Forest Reserve. The CEMP is intended to set up institutional structures at national, district and community levels to address the problem of deforestation and the related poverty levels. This is under the premise that this situation can be improved with good management and community involvement. The study reviewed literature on the concept of CBNRM with particular reference to co-

management as one form of a participatory approach with shared responsibility on the management of natural resources between government and local communities. The significance of community involvement in the use and management of forest resources is highlighted. The factors necessary for the effective implementation of joint management programmes are also highlighted and their importance in achieving conservation, community development and good governance. A case study was reviewed to show the importance of these indicators to the successful implementation of such participatory programmes. A list of indicators was compiled as the basis for the assessment of the implementation of the CEMP. A review of government documents provided background information on the establishment of the CEMP, the need for its implementation in Luansobe and the structures put in place at national, district and community levels to implement the programme. These data were supplemented by information gathered through semi-structured interviews with purposively selected key informants and workshops with local community members. Information obtained showed that the institutional structures implementing the CEMP on the ground are different from those set out in documents and are deficient of communication links among the stakeholders, especially community members. This has had negative effects on the representativeness of decisions made regarding the implementation of the programme and accountability of leaders to community members. This has further affected the implementation of projects under the CEMP intended to improve people's livelihoods through alternative sources of income that promote the sustainable use of forest resources.

The research described in this mini-dissertation was carried out at the Centre for Environment and Development, University of Natal, Pietermaritzburg, under the supervision of Professor Robert Fincham.

This mini-dissertation represents the original work of the author and has not otherwise been submitted in any form for any degree or diploma at any university. Where use has been made of the work of others it is duly acknowledged in the text.



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COMPONENT A

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LIST OF ACRONYMS

ADC	:	Area Development Committees
CBNRM	:	Community-based Natural Resources Management
CDC	:	Community Development Committees
CEMP	:	Community Environmental Management Programme
CSO	:	Central Statistical Office
DA	:	District Administrator
DANCED	:	Danish Cooperation for Environment and Development
DDCC	:	District Development Coordinating Committee
DEC	:	District Environment Committee
DEF	:	District Environment Facilitators
DWAF	:	Department of Water Affairs and Forestry
ECZ	:	Environmental Council of Zambia
ESP	:	Environmental Support Programme
FAO	:	Food and Agricultural Organisation
FPC	:	Forest Protection Committee
FZR	:	Forum of Zone Representatives
GDP	:	Gross Domestic Product
IAP2	:	International Association for Public Participation
IUCN	:	The World Conservation Union
JFM	:	Joint Forest Management
MCM	:	Mopani Copper Mines
MMC	:	Mufulira Municipal Council
MTENR	:	Ministry of Tourism, Environment and Natural Resources
NEAP	:	National Environmental Action Plan
NESC	:	National Environmental Steering Committee
NTFP	:	Non-timber Forest Products
PMT	:	Project Management Team
SAP	:	Structural Adjustment Programme
SIWI	:	Stockholm International Water Institute
UNDP	:	United Nations Development Programme

- UNSD : United Nations Division for Sustainable Development
- UNESCO : United Nations Educational, Scientific and Cultural Organisation
- WCED : World Commission on Environment and Development
- WRC : Water Research Commission
- ZDC : Zone Development Committee

1 INTRODUCTION

Public participation continues to remain in the spotlight as a feasible and realistic approach to natural resources management. One expression of this approach is reflected in the concept of community-based natural resources management (CBNRM), defined as the “conscious and organised local efforts to durably maintain or increase the regenerative capacity of local natural resources” (van den Breemer, Drijver & Venema 1995:4). CBNRM seeks to entrust decision-making power and responsibilities to the local communities¹. It requires the establishment of local institutional structures and systems to maintain and develop natural resources and effectively promote desirable behavioural changes (Chambers 1983; Cernea 1985 cited in van den Breemer *et al* 1995).

Environmental protection and management has been present in Africa over many years. According to Schroeder (1999), colonial administrators are believed to have forced environmental strategies on their African colonies. These strategies included: the forceful removal of local people from their lands for the creation of game parks for hunting and game viewing, and conversion of forested areas into protected areas in which local people were unable to continue using this land since their land-use practices were considered to be incompatible with colonial forestry revenue methods. Unfortunately, this led to a decline in the quantity and/or quality of Africa’s rich biodiversity in these newly settled areas. In order to address this problem, stringent protection and preservation measures were introduced by international agencies. However, this resulted in conflicts between the conservationists and the displaced local communities. Local people started encroaching on protected areas and forcefully resisted the expansion of these areas thus putting pressure on conservationists to take local communities’ needs into account. These developments led to a shift of policies that allowed for the distribution of economic benefits generated by resource management programmes with local communities in the

¹ In this study, a community is defined as: ‘a social network of interacting individuals, usually concentrated into a defined territory’ (Johnston R J. 1994. *The dictionary of human geography*. 3rd ed. Cornwall: Blackwell); ‘a group of people living in a particular local area and often sharing common goals, social rules and/or family ties’ (www.cogsci.princeton.edu, www.fao.org) whose livelihood strategies impact on the environment and natural resources in their locality.

protected areas, as a means of preventing further encroachment on protected resources (Schroeder 1999).

CBNRM has been recognised as important in addressing the adverse impacts of human activities on the environment since development or human life sustenance is generally regarded to be impossible in degraded environments (Harrison 1987 cited in van den Breemer *et al* 1995). As a result, there is a growing awareness of the relation between resource depletion and human hardship and suffering. This relationship can be seen in instances where communities living in and around forests are faced with a reduction in sources of food, medicinal plants and fuel wood, among other products, attributable to deforestation and the impacts thereof. Caught in such scenarios, many poor communities tend to have no choice but to harvest and use forest resources in ways that negatively impact the environment in the long-term. As stated by van Riet and Grootuis (1999: 194), "if you are poor, the need to conserve natural resources is not felt as strongly, since you are dependent on them for your daily survival." For example, communities located in rural areas and on the peripheries of urban centres generally have no access to electricity and thus turn to forest resources as their source of domestic energy and income generation. Increases in the population of these communities leads to heightened demands for forest resources, the rate of which normally goes far beyond the resources' ability to effectively regenerate.

Governments are, therefore, faced with considerable challenges in natural resources management that cannot be addressed by conventional conservation approaches that leave out communities in planning and implementation of relevant strategies. African governments are now adopting natural resources management strategies that overcome suspicion and mistrust that was prevalent during the colonial era, and now promote community involvement in resource management strategies (Schroeder 1999). One form of CBNRM that is regarded as being inclusive of communities is co-management. Co-management entails a partnership among different stakeholders through shared responsibility of the management of natural resources (Borrini-

Feyerabend 1997; Ballabh, Ballooni & Dave 2002). It also takes into account local values and indigenous knowledge that can contribute positively to sustainable resources management. Consequently, governments are increasingly considering the involvement of local people in planning and implementation as a basis for effective sustainable resources management (van Riet & Groothuis 1999). Moreover, there has been a realisation that the impacts of many land-based activities on natural resources are largely mitigated or prevented at the individual stakeholder or land-dweller level. As such, a people-oriented process is required to draw these individuals or groups into actual implementation of natural resources management (WRC 1998).

Zambia is faced with the problem of environmental degradation due to the negative impacts of human activities. The management of the environment and natural resources in the country is currently faced with many challenges (MTENR 2002a). The World Bank Report (1997) put poverty at the core of environmental degradation in the country. It stated that environmental degradation is rooted in poverty and the lack of alternatives in people's survival strategies as well as inadequate understanding of the consequences of the degradation. The growing poverty levels, presently estimated at 80% of the country's population have resulted in increased pressure on the available natural resources as people strive to make a living (MTENR 2002a).

One of the earliest forms of community environmental management in Zambia was the Administrative Management Design for Game Management Areas (ADMADE), which was established in 1989. In line with the emerging trends of the mid-1980s, ADMADE was formulated on the premise that the involvement of local residents in game management areas would render much needed assistance to conserving wildlife in Zambia. This contention was based on projects providing a share of the revenue benefits from legal, commercial uses of wildlife in their areas (ADMADE Sustainability Project 1999). In this light, in order to address problems of increasing environmental degradation and unsustainable natural resources utilisation in relation to poverty, the Zambian Government developed the Environmental Support

Programme (ESP) in 1998. The ESP is implementing the recommendations of the National Environmental Action Plan (NEAP), which was adopted by the Zambian Government in 1994 as a framework to guide environmental management in the country. The overall objective of NEAP is the integration of environmental concerns into the socio-economic development process within the country. The major objective of the ESP is to “stimulate widespread interest and investment in environmental and natural resources management within a framework of economic growth” (MTENR 2002a: 9).

One of the component parts of the ESP is the Community Environmental Management Programme (CEMP), which is being implemented in eight of the nine districts of the country namely, Mufulira, Mpika, Chibombo, Kafue, Mufumbwe, Nchelenge, Petauke and Siavonga. The CEMP is a capacity building programme whose main objective is to strengthen institutions at community level and to facilitate community involvement in environment and natural resources management. The programme is intended to empower the local communities through the provision of information, introduction of a workable legal framework and ingestion of financial resources to address the aforementioned pressing environmental concerns and issues of poverty alleviation. It also seeks to enable communities to take control of the development process through participation in the identification, planning and implementation of community-based micro-projects (MTENR 2002a,b). Through the identification of micro-projects that will be of benefit to both communities and the environment, the programme aims to address the problems of environmental degradation and poverty alleviation. The programme is intended to work towards ensuring that while communities endeavour to improve their livelihoods, they do so in a manner that promotes the sustainable use of natural resources.

1.1 Problem statement

Several different but interrelated environmental issues attributed mainly to human activities have been identified as contributing to Zambia’s growing natural resources degradation (World Bank 1997; MTENR 2002a,b). They include:

- Deforestation, mainly as a result of charcoal production and the collection of firewood as a source of domestic energy;
- Soil infertility due to poor land husbandry and farming practices such as the indiscriminate use of inorganic fertilisers and chemicals, and shifting cultivation;
- Inappropriate and environmentally harmful changes to the landscape due to uncontrolled sand and stone quarrying as sources of income and building materials; and
- Wildlife and fish depletion as a result of indiscriminate poaching, over-fishing and the use of inappropriate fishing methods such as poisoning.

All the above-mentioned problems arise out of peoples' need to make a living and earn an income. However, these activities are having grave consequences for the country's natural resources and environment. The aforementioned environmental issues are compounded by "inadequate enforcement, inadequate management structures, poor coordination among stakeholders and lack of community incentives and a supportive legal framework to participate in management" (MTENR 2002a: 17).

The CEMP is intended to put in place structures responsible for the coordination of environmental issues at district level, including the reduction of poverty, with the support of the donor community (MTENR 2002a,b). The programme is designed with the premise that the environment and natural resources in the country, including forest resources, are degraded but this situation could be improved with good management systems in place. The implementation of the programme, with the involvement of local communities in a manner that will lead to the generation of wealth and poverty reduction, is thus expected to contribute to the rehabilitation of the degraded environment.

This study will analyse the implementation of the CEMP as a participatory approach adopted by the Zambian Government in addressing the problem of environmental degradation in the country in collaboration with local communities. Given the host of environmental problems currently being addressed under the CEMP and the

constraint of time, the study will focus on the problem of deforestation in Mufulira district. Two research questions will inform the overall aim and objectives of the study.

- i. Has the Community Environmental Management Programme (CEMP) facilitated the implementation of a legal framework and the provision of financial resources to address the concern of deforestation at a community level whilst at the same time addressing issues of poverty reduction?
- ii. Has the CEMP empowered local communities to take control of development initiatives and the sustainable management of forest resources?

1.2 Aim and objectives

The aim of this study is to assess the performance of the CEMP in terms of empowering local rural and peri-urban communities to address concerns of deforestation, with particular reference to Mufulira District, and the programme's contribution to poverty alleviation. In so doing, it is hoped that the findings will go towards informing future ESP implementation processes.

The objectives of the study are to:

- i. conduct a literature review on the role of community participation in the management of forest resources;
- ii. compile a set of indicators emanating from the literature review that will be used to assess the effectiveness of the implementation of the CEMP;
- iii. identify and document institutional structures and legal frameworks in place at community level related to capacity building and community involvement in the implementation process of CEMP;
- iv. examine the role of CEMP in facilitating poverty reduction in relation to the sustainable use of forest resources at community level; and
- v. make appropriate recommendations based on the research findings.

1.3 Conceptual framework

The concept of community-based natural resources management (CBNRM) will provide the overarching framework for this research. The study will review the effectiveness of the implementation of the CEMP based on principles of the participatory approach and its importance with regards to forest resources management, in comparison with similar programmes that have been successfully implemented elsewhere. In this light, the research will employ both an interpretive and a critical social science approach (Neuman 1999). It intends to document and show an understanding for the importance of CBNRM, with particular reference to co-management, in the context of the CEMP as well as the impacts, both positive and negative, and the measures that can be employed to improve the implementation of the programme.

The study will consider various aspects of the concept of CBNRM as a participatory approach. It will identify the principles and indicators that are fundamental for the effective implementation of CBNRM initiatives. Based on these indicators, the study will then assess the effectiveness of the CEMP as a participatory approach employed in addressing deforestation in Mufulira. Figure 1.1 illustrates the conceptual framework within which the research will be approached.

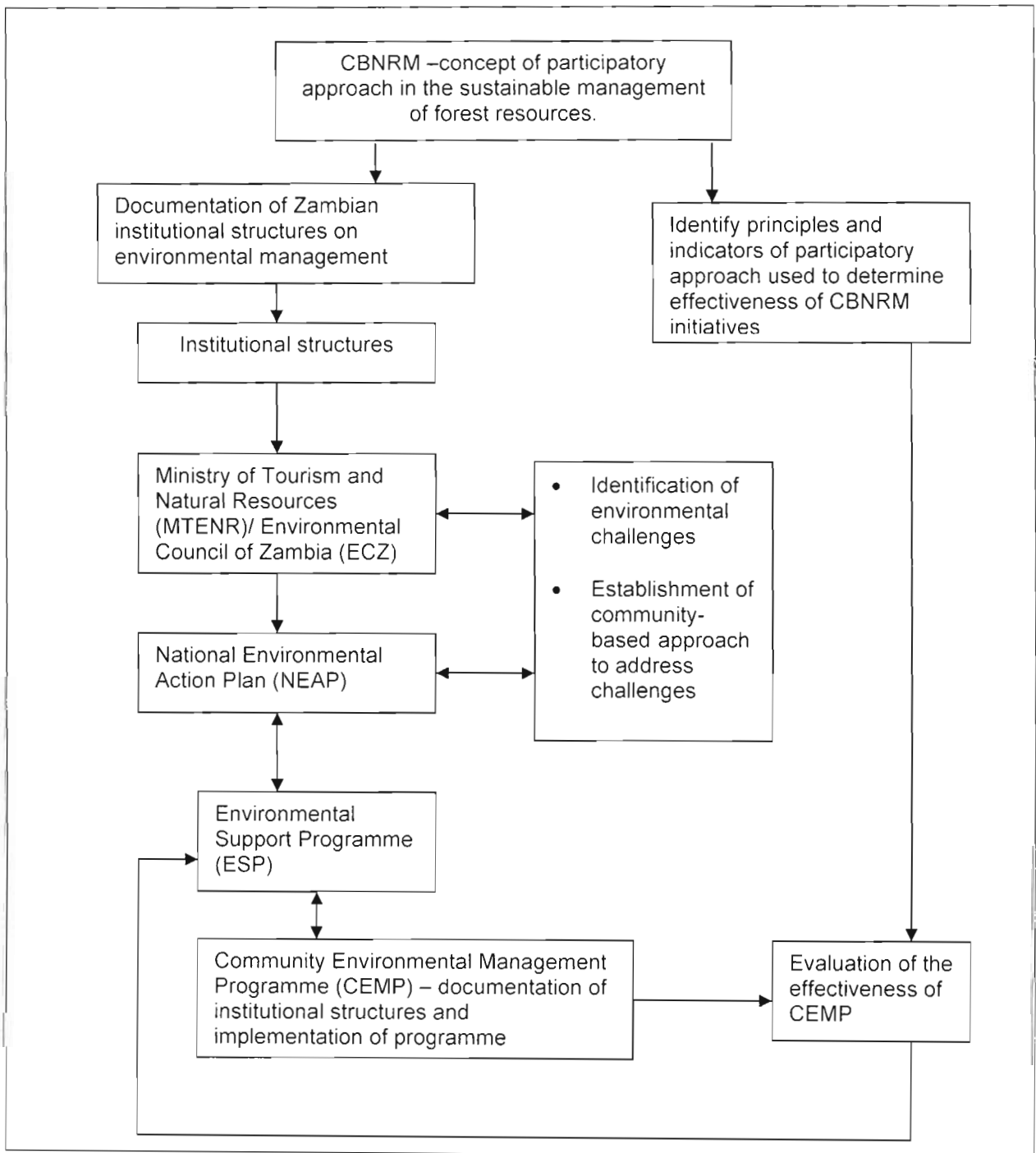


Figure 1.1: Conceptual framework

1.4 Methodology

The study will use a case study approach, looking at the effectiveness of the implementation of the CEMP in Luansobe settlement of Mufulira district. This is

mainly due to the limited time and funding available to conduct the research. Luansobe has been selected for, among other reasons, easy accessibility, evidence of deforestation and proximity to the central business district (CBD) area where government departments are situated. The research will be descriptive, analytical and evaluative, considering the concept of CBNRM and assessing the effects of the intervention of CEMP in addressing deforestation. The research will use qualitative methods of data collection, which are elaborated on in chapter 3.

1.5 Structure

Chapter two reviews literature on the concept of community-based natural resources management as a participatory approach. The chapter specifically considers co-management as one form of CBNRM currently being used to address environmental caused by human activities. A set of indicators is derived from the literature on which the effectiveness of the implementation of the CEMP will be based. The chapter also reviews literature on the characteristics of the study area, the CEMP and the structures implementing it. Chapter 3 gives an overview of the nature of the study and the methods that will be used in conducting the research.

2 LITERATURE REVIEW

2.1 Introduction

There have been growing concerns regarding environmental degradation as a result of human activities. The World Commission on Environment and Development highlighted these concerns in the Brundtland report that led to the adoption of the concept of 'sustainable development' (WCED 1987). Subsequently, the 1980s saw the emergence of widespread governmental and popular concern with the sustainable use of resources. Sustainability became a central issue at all scales in the period leading to the 1992 United Nations Conference on Environment and Development in Rio (Howitt 2001). In 1992, the World Summit on Sustainable Development (Rio Earth Summit 1992) illustrated the link between global socio-economic growth and the need for environmental protection. Consequently, it was recognised that sound environmental and natural resources management is necessary for sustainable development (SIWI 2002).

Having recognised the need for sustainable utilisation of natural resources, policy-makers also realised that top-down management systems were proving to be ineffective. The relevance of indigenous knowledge and traditional management systems was seen as an integral part in ensuring that resources continue providing their benefits in perpetuity (Berkes 1989). As such, this recognition has resulted in policy shifts towards sustainable and rational utilisation, protection, conservation and management of natural resources based on community needs and priorities within national development frameworks (UNDSD 1999).

The realisation of the need to address the adverse impacts of human activities on the environment has led to the adoption of a people-centred approach to the management of natural resources, development and poverty alleviation (Honey 1999). The adoption of this approach can be attributed to a number of factors. Firstly, development or human life sustenance is impossible in degraded environments

(Harrison 1987 cited in van den Breemer *et al* 1995) thus bringing to the fore the relation between resource depletion and human hardship and suffering. The indiscriminate use of these resources, without repletion, has the compounding effect of local communities remaining in the cycle of poverty since these communities rely on “forest resources for food, fuel-wood, non-timber forest products (NTFPs) and medicinal plants” (Casson & Obidzinski 2002: 2147).

Secondly, some poor communities have no choice but to use methods that degrade the environment (van den Breemer *et al* 1995). One only has to look at rural communities dependent on forest resources as their source of energy and income generation. In light of this, Swanepoel (1997) further qualifies the argument for community involvement in the development and management of natural resources for two reasons. Firstly, through participation, a solid, local knowledge base is made available for development and management. “Communities that have lived in deprivation, surviving the hardships of poverty have ‘common sense’ knowledge of the social, cultural and natural environment dynamics that can be of great value to the development and management of natural resources” (Swanepoel 1997: 4). Secondly, it has been shown that “people who do not participate in their own development have no affinity for developmental efforts and their results” (Swanepoel 1997: 5). This usually leads to the failure in the sustenance and maintenance of development programmes or initiatives. A more inclusive management strategy, therefore, becomes easier to implement with stakeholder support and is more likely to result in sustainable resource management (Cain 2001).

Community participation, nonetheless, does not just end at engaging the local people in programmes and initiatives. Governments are also required to create legally secure conditions and provide financial assistance which enable communities to invest in their natural resources and simultaneously, receive financial or material returns from these investments (van den Breemer *et al* 1995). This leads to the strengthening of the capacity of local communities and officials through interaction with each other and enhances the overall quality of governance. Capacity building

also increases community ownership and empowerment furthers institution building to organise community management structures. Importantly, it builds alliances to engage in macro-level natural resources management (Annamraju 2002).

2.2 Deforestation

As previously noted, human activities are impacting negatively on natural resources. This study will look mainly at deforestation as a result of activities engaged in by poor communities and the consequences thereof. There have been growing concerns about the environmental, economic and social consequences of deforestation (Casson & Obidzinski 2002) due to the uncontrolled and unmonitored use of these resources by poor communities. Carley and Christie (1992) recorded that tropical forests account for half of the world's forestlands and are the most productive of the earth's ecosystems in their natural state. In a recent publication by the United Nations Food and Agricultural Organisation (FAO), it is estimated that between 1990 and 2000, forest cover in Africa and South America declined by 0.8% and 0.4% a year respectively (FAO 2001).

Researchers have shown that forests are cleared for various reasons including "fuel wood, non-timber resources, and agriculture – grazing, food production and plantations" (Cavelier & Etter 1995; Hamilton, Juvik & Scatena 1995; Kok, Verweij & Beukema 1995; Wunder 1996, 2000 cited in Jokisch & Lair 2002: 239). Illegal cutting down of trees for commercial purposes by local communities may have a number of short-term economic and social benefits. The informal timber sector provides some form of employment and income for local communities, however, these benefits are marginal in the long-term (Casson & Obidzinski 2002). The short-term benefits of clearing forestlands are thus outweighed by the negative impacts on environmental and social issues, which include loss of biodiversity; increased environmental hazards such as soil erosion, flooding and a decline in water quality; and the economic well-being of communities that rely on the resource base (Casson & Obidzinski 2002; Jokisch & Lair 2002).

It is quite evident from the foregoing that the socio-economic conditions of communities living in and around forests are an important factor in terms of forest resources management. The poverty levels of these communities is seen as the main obstacle to achieving the objective of conservation of natural resources (IUCN 2002). Research has shown that forest policies that do not take into account local peoples' needs almost invariably fail (Dudley 1997). Conversely, a move to improve the livelihoods of the people seems to be essential to attaining sustainable use of forest resources (IUCN 2002). A people-centred approach entails providing economic incentives for local communities and the opportunity to be actively involved in formal timber activities (Casson & Obidzinski 2002). Where there is no system in place to compensate communities living in and around forestlands for the environmental services that forests provide, activities that degrade these forests are likely to continue (Jokisch & Lair 2002).

Consequently, the impacts of many land-based activities on forest resources can be mitigated or prevented, for the most part, at the individual stakeholder or land-dweller level as previously alluded to in section 1.1. Furthermore, research has shown more clearly that people living in and around forestlands are not necessarily part of the problem of forest degradation (Dudley 1997). Indeed, Hessing and Howlett (1997) point out that forest resources, like all natural resources, are at the origin of the production of goods for human consumption. Generally, therefore, the utilisation of these resources is out of necessity. Nonetheless, the negative impacts of the activities of the people on the forest resources and the environment in general cannot go unnoticed. Subsequently, a participatory approach has increasingly been seen as the necessary approach required to draw local communities into actual implementation of forest resources management (WRC 1998). This approach entails a change in the structures that govern the management of forest resources (Meadows, Meadows & Rander 1992). In effect, this has resulted in the adoption of participatory approaches that facilitate higher levels of local control, influence and participation.

2.3 The participatory approach

The participatory approach to the management of natural resources also referred to as community-based natural resources management (CBNRM), including forest resources, can take on many forms. CBNRM includes co-management where communities may go into partnership with private individuals, businesses, government or non-governmental organisations (NGOs). Another form of CBNRM provides for communities to have sole ownership of projects regarding the management of natural resources (Borrini-Feyerabend 1997). The literature review will focus on the approach of co-management of forest resources between government and communities in order to establish indicators fundamental to the effective implementation of this type of co-management programmes.

CBNRM is a participatory development approach that focuses on:

- *Conservation*: it is concerned with the wise and sustainable use of the natural resources;
- *Community development*: it promotes income generation or improved livelihoods through better resource management; and
- *Democracy and good governance*: it involves the devolution of authority from central government to communities, and the development of accountable and representative decision-making institutions at community level (van der Jagt & Rozemeijer 2002).

Consequently, community participation in the actual implementation of sustainable forest resources utilisation and management can therefore be seen as a key factor in overcoming the problem of deforestation through conservation while at the same time contributing to the improvement of livelihoods through community development.

2.3.1 Types of public participation

Community participation in the management of natural resources can occur at various levels and in various forms depending on the goal of the initiative. The International Association for Public Participation (IAP2) (cited in RSA DWAF 2001) identifies five levels of public participation:

- **Inform** - the objective is to provide the public with balanced and objective information to enable people to understand the problem, alternatives and/or solution.
- **Consult** - the objective is to obtain public feedback on analysis, alternatives and/or decisions. It involves acknowledging concerns and providing feedback on how public input has influenced the decision.
- **Involve** - the objective is to work directly with the public throughout the process to ensure that public issues and concerns are understood and considered at every stage.
- **Collaborate** - the objective is to work as a partner with the public on each aspect of the decision, including the development of alternatives and the identification of the preferred solution.
- **Empower** - the objective is to place final decision-making in the hands of the public.

The South African Department of Water Affairs and Forestry (DANCED 1998 cited in RSA DWAF 2001) identifies three types of public participation:

- **Passive participation** - this level involves only the dissemination of information to stakeholders, such as dissemination of information during an awareness campaign.
- **Consultative participation** - stakeholders are consulted before the organisation makes a decision but they do not share decision-making responsibility. An example would be considering stakeholder issues expressed during a workshop.
- **Interactive participation** - stakeholders are involved in collaborative analysis and decision-making.

Different levels or intensities of public participation may best be described as points along a continuum, with the level of stakeholder influence on decision-making increasing towards the top of the ladder (Creighton 1998 cited in RSA DWAF 2001). Figure 2.1 illustrates this hierarchy of public participation.

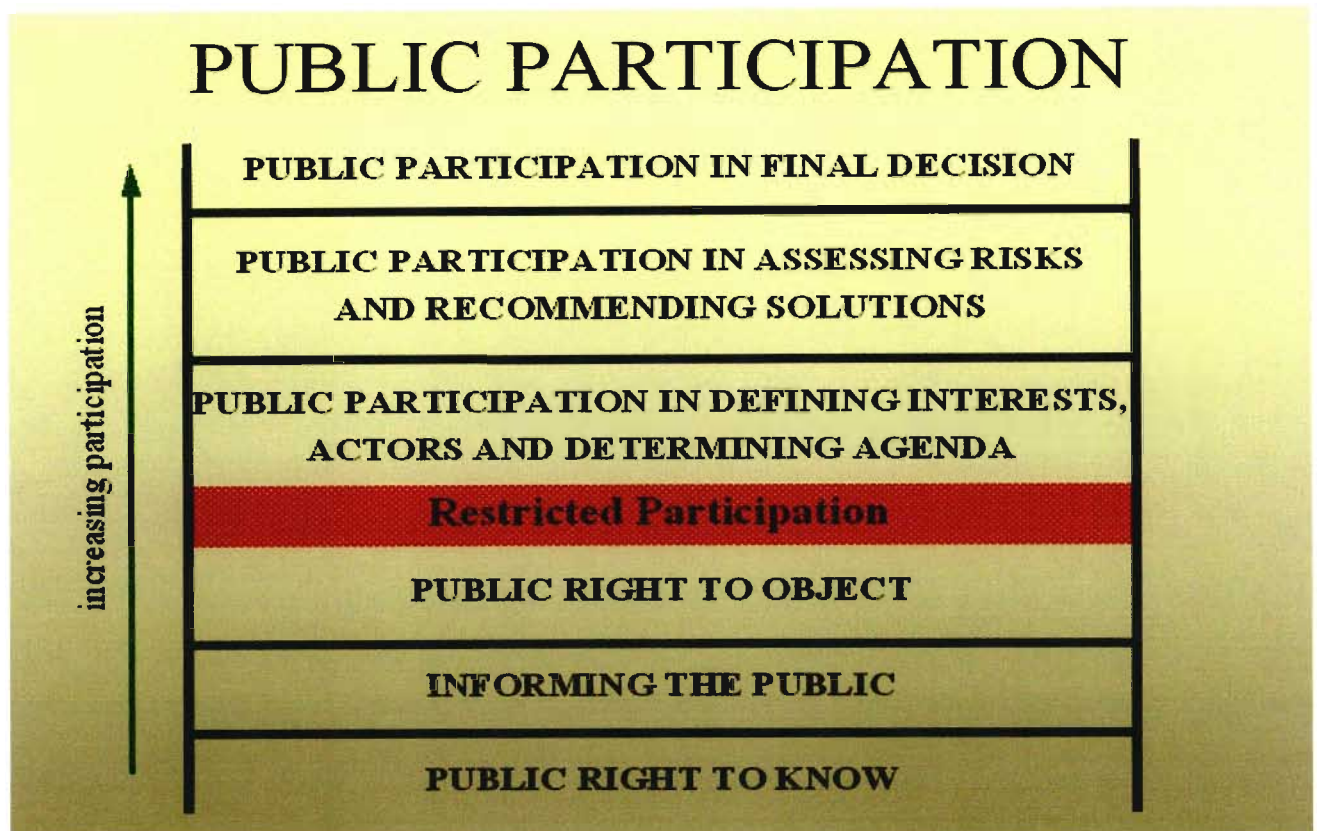


Figure 2.1: The public participation ladder (Arnstein 1969; Weidemann & Femers 1993 cited in Carver 2001: 3)

Since co-management is a partnership between government and communities, the system for joint forest resources management should be that of interactive participation and should include all the levels of participation. This management system should move from informing communities on the problem of deforestation and possible solutions to working together with the people in developing possible solutions and alternatives. The people should also be empowered to make final decisions on the preferred solution that is beneficial and acceptable to the whole community. Table 2.1 shows the various levels of participation and the collaborative relationship between the government and community.

Table 2.1: Relationship between government and communities in co-management of forest resources

Process	Relationship between implementing agency and community
Inform: the community has a right to know the intentions of the government.	The community needs to be provided with information to enable people understand the problem of deforestation, alternatives and/or solutions. This enables the community to develop an understanding of and the desire to participate in implementing the initiative.
Consult: the community has a right to object to plans that may have negative impacts on their livelihoods.	The community is given the opportunity to accept or reject alternatives and/or solutions put forward while at the same time providing suggestions that may influence the final decision. This creates awareness among community members of their problems and needs, and builds confidence to bring about positive change.
Involve: incorporation of community opinions and concerns.	The government works together with the community in addressing issues and concerns raised by the people at every stage of the planning process.
Collaborate: working together with community in determining rights, roles and responsibilities.	The government and community work as partners in defining interests; actors and their roles; determining the purpose of the collaboration; assessing risks and recommending preferred solutions.
Empower: giving community authority	Under established institutional structures operating within rules and regulations agreed to by all stakeholders, communities are given the authority to make the final decisions acceptable to all members. Thus through participation and empowerment, communities become co-managers with the government under the partnership developed.

Source: de Beer & Swanepoel 1998; Arnstein 1969, Weidemann & Femers 1993 cited in Carver 2001; DWAF 2001

2.4 Co-management

Deforestation, as suggested by Casson and Obidzinski (2002: 2148), can be overcome through “cooperative/partnership arrangements with local communities”, that is, co-management. Co-management, also referred to as collaborative management, joint management or shared management, is one form of public participation which involves a partnership among different stakeholders for the

management of a set of resources. Stakeholders normally include the agency with the jurisdiction over the set of resources, usually government and organisations of local communities and resource users (Borrini-Feyerabend 1997).

Co-management provides a way of integrating social, cultural, political and environmental issues (Howitt 2001). It has been suggested that “co-management can be understood as a system which combines elements of several management systems – local-level, state-level, traditional, industrial, global and so on” (Berkes *et al* 1991 cited in Howitt 2001: 370). Co-management of forest resources, also referred to as Joint Forest Management (JFM), assumes a shared responsibility of forest management between the government and the community, incorporating a combination of the traditional knowledge of the local people and the technology and resources available with the government for mutual benefit (Ballabh, Ballooni & Dave 2002).

2.4.1 Importance of co-management

Community involvement in forest resources management is essential since community members:

- are users of forest resources;
- they practice activities that may have an impact on forest resources; and
- they may also be concerned about the management of forest resources (World Bank 1994).

Consequently, co-management is fundamental in the sustainable management of forest resources based on the following reasons:

- There is an increased likelihood of commitment by resource users and other stakeholders once they are sure about their involvement in the management arrangements and decision-making bodies established (Borrini-Feyerabend 1997). Research has shown that “people who do not participate in their own development have no affinity for developmental efforts and their results” (Swanepoel 1997: 5). This usually leads to the failure in the sustenance of sustainable forest resources

management programmes or initiatives. Importantly, community participation lends credibility and legitimacy to decisions, and therefore, the likely resultant actions because they will derive from a broad-based and participatory process. Consequently, a more inclusive management strategy becomes easier to implement with stakeholder support (Cain 2001).

- More effective action can be obtained from the decentralisation of management responsibility and vesting authority in community institutions as partners in joint management (Borrini-Feyerabend 1997). Many communities readily embrace opportunities to take part in resource-based economic activities on more equal terms (Howitt 2001).
- Through power sharing, there is the resultant effect of community empowerment and the development of local institutions that contribute to social development (Borrini-Feyerabend 1997). Power sharing thus leads to capacity building. Hough (2003 *unpublished*) describes capacity building as a process of transformation by which communities and institutions develop their abilities to perform functions, solve problems, and set and achieve their own goals. This process results in changes in attitudes and behaviours of local resource users towards the use and management of forest resources. Institutional capacity building also leads to clarification of structures, responsibilities, accountabilities and reporting lines thus reducing incidences of conflicts among stakeholders (Hough 2003).

2.4.2 Principles of community participation in natural resources management

A number of principles have been formulated on which sustainable and successful CBNRM systems, including co-management, should be based. These include the following:

- ***Decision-making authority must be at community level***

A community must be given access to resources and play a substantial role in their management (Pye-Smith & Borrini-Feyerabend 1994). A community with authority to decide how, by whom and when to use natural resources is likely to do so in a more sustainable manner (van der Jagt & Rozemeijer 2002). Participation

therefore goes beyond information sharing between government and communities, and must be accompanied by empowerment, described by Swanepoel (1997: 7) as “the acquisition of power and the ability to give it effect.”

- ***Decision-making must be representative***

Community institutional structures must allow all members to participate in decision-making in a transparent manner that encourages members to be able to implement and adhere to decisions made (van der Jagt & Rozemeijer 2002). de Beer and Swanepoel (1998) argue that these structures will ensure that government does not impose their preconceived ideas and concerns as the community's priorities.

- ***The community must be as small as practical***

“Distributing benefits and making representative decisions is easier in a small community” (van der Jagt & Rozemeijer 2002: 12). Work done in big communities is said to be limiting in terms of the potential for learning and participation among members thus reducing chances of enhancing self-reliance and poverty alleviation (Swanepoel 1997). In addition, small-scale community-based initiatives have been shown to be generally effective and efficient (Pye-Smith & Borrini-Feyerabend 1994).

- ***Leadership must be accountable***

Leaders of community organisations must be accountable for decisions made regarding the use of community resources. Decisions made must therefore be truly representative of all community members' views and there must be equal sharing of benefits from the resources (van der Jagt & Rozemeijer 2002). The work of Pye-Smith and Borrini-Feyerabend (1994) shows that effective leadership normally stimulates people to act in the desired manner thus ensuring effective implementation of initiatives.

- ***Benefits must outweigh costs***

van der Jagt and Rozemeijer (2002) suggest that where communities perceive a beneficial aspect of conserving natural resources, they are more inclined to participate. This, nonetheless, can be rather difficult when it comes to factors such as improved skills, enhanced cultural identity and strengthened community organisations that are not quantifiable. However, this should not be considered as a major obstacle since this can be overcome by raising peoples' understanding and awareness of these benefits.

- ***Benefits must be distributed equitably***

Although communities consist of different groups, they are all entitled to the benefits resulting from the use and management of the natural resources. This entails all groups assuming their respective management responsibilities. In so doing, no one is excluded from the benefits thus ensuring that all members abide by community plans and regulations (van der Jagt & Rozemeijer 2002).

- ***Benefit distribution must be linked to natural resources conservation***

CBNRM aims at conserving natural resources and maintaining the quality of the environment. Re-investing the benefits of CBNRM such as a management plan to reduce land-use conflicts, sale of NTFPs, or sale of timber from thinning-out activities, can enhance the value of the environment and may lead to higher returns (van der Jagt & Rozemeijer 2002).

- ***Capacity building***

The community's ability to make informed decisions on the use and management of natural resources must be enhanced as this is essential to sustainable CBNRM (van der Jagt & Rozemeijer 2002). In effect, sustainable CBNRM should be an educational process through which community members change themselves and their behaviour, and acquire new skills through cooperative work (Brokensha & Hodge 1969 cited in de Beer & Swanepoel 1998).

2.4.3 Indicators for effective co-management

Based on the aforementioned principles, the indicators in box 2.1 have been highlighted as fundamental factors in attaining effective co-management systems resulting in the sustenance of jointly managed initiatives.

Box 2.1: Indicators for effective co-management

Physical boundary delimitation: Clear and recognised boundaries for the area under joint management must be present and arrived at through collaborative agreements taking into account issues and concerns raised by community members. In addition, there must be a common understanding of the purpose of the collaboration among all stakeholders.

Security and fairness: Rights and rules, including duties and benefits of the various stakeholders, must be clearly spelled out in order to build a sense of security and fairness. Competition over poorly allocated resources can lead to tension and insecurity. These rights and rules must be drawn up with the full participation of all stakeholders. An inclusive and fair initiative promotes transparency, which leads to improved decision-making.

Access to information: Information must be readily accessible by all parties who participate in management decisions and control in order to build trust and ensure that all role players act effectively. Trust and a shared vision encourage community members to contribute their ideas, needs, suggestions or information thus providing a source of knowledge and experience that results in the best decisions.

Enforcement of agreements: Measures adopted and agreed upon must be effectively enforced in order to avoid the weakening of the effectiveness of the management and authority.

Conflict resolution mechanisms: Conflict resolution mechanisms that are inclusive of community members must be in place.

Accountability: All parties must be made accountable with the provision for sanctions against non-compliance.

Capacity building: Community institutions established must be democratic and representative in order to be effective in the management and use of natural resources.

Community participation: There must be community involvement at every level of the decision-making process in order to achieve sustainable and successful co-management.

Source: World Bank 1994; Borrini-Feyerabend 1997; RSA DWAF 2001; UNESCO 2001

2.5 Benefits of co-management of forest resources

As previously mentioned, community participation in the management of forest resources has generally come to be accepted as good, especially if it is organised

and orderly (Swanepoel 1997). It ensures self-interest without which efforts to implement initiatives for the sustainable utilisation and management of the resources are likely to fail (Berkes 1989). Through participation, people know that they have a stake in the effort and results (Swanepoel 1997). Moreover, many communities readily embrace opportunities to take part in resource-based economic activities on more equal terms (Howitt 2001). As a result a more inclusive management strategy becomes easier to implement with stakeholder support (Cain 2001). The following have been identified as the main benefits derived from the co-management of forest resources. These factors have also been recognised as essential elements for successful implementation of CBNRM programmes.

2.5.1 Capacity building

Community involvement entails the empowerment of local people. Swanepoel (1997) states that empowerment means that people are given the power to make decisions as well as the knowledge and understanding to make the correct decisions regarding the use and management of forest resources. People therefore become more aware of the relationships between themselves and their environment as well as their needs and resources.

Empowerment of local people also entails negotiating, which leads to improved outcomes of resource management (Howitt 2001). Through negotiations, communities are able to be part of co-management solutions to conflicts on resource use and management. This interaction thus strengthens the capacities of stakeholder groups, and provides opportunities for developing a common understanding and mechanisms on the challenges facing forest resources (World Bank 1994). Nonetheless, as Howitt (2001) points out, this calls for vigilance and openness for people engaged in these negotiation processes.

In addition to empowerment, community participation requires the ownership of development projects by local people. This ensures the successful implementation and sustenance of the projects. There is also further development within the

communities through the creation of employment as a result of the projects implemented. This contributes to the improvement of livelihoods within the communities (Swanepoel 1997).

Moreover, the capacity of communities is improved through the establishment of institutions that are effective and efficient. Leadership skills and other skills to organise, negotiate, plan and implement specific tasks are gained or improved. In effect, all the above factors lead to the overall improvement of the lives of the local people (Swanepoel 1997).

2.5.2 Recognition of indigenous knowledge

Traditional ecological knowledge recognition and application is an increasingly important element in many resource management systems (Howitt 2001). Traditional ecological knowledge has been defined by Mailhot (1994 cited in Howitt 2001: 36) as “the sum of the data and ideas acquired by a human group on its environment as a result of the group’s use and occupation of a region over very many generations.” Berkes (1989) points out that traditional knowledge systems have always been in place and incorporate rich and varied indigenous knowledge that has sustained the living resource base on which social communities rely. This sustenance is achieved through the emphasis placed on responsibility, stewardship and co-operation rather than competition over resources. Subsequently, through indigenous knowledge, communities can help identify the options available to address the problem of deforestation and will be able to provide information to assist predict likely outcomes (Cain 2001). Co-management, therefore, seeks to improve the existing capacities of the local people (Howitt 2001).

An example of the rise in the recognition of traditional indigenous knowledge is shown in the case of Aboriginal and Torres Strait Islander peoples in Australia. The traditional knowledge provides the basis for a shift in thinking that shows how “human and ecological rights are most properly embedded each within the other” (Rose 1996: 86). The recognition and application of traditional ecological knowledge is shown in

the joint management of national parks in the Northern Territory of Australia. Boards of management with the direct participation of Aboriginal traditional owners manage all these parks. Traditional knowledge is increasingly incorporated in management plans for the parks as part of their basic orientation (Howitt 2001). In contrast, the work of White (1994) shows that community-based forestry and watershed management projects in Haiti could not be sustained on account of the disregard of indigenous knowledge and propagation techniques and socio-cultural institutions that were present. Robertson *et al* (1992 cited in Howitt 2001: 44) emphasise that “effective joint management of natural resources is based on respect for indigenous law.”

2.5.3 Improved governance

Co-management can only succeed in the presence of a favourable policy context. This therefore requires the shift of policies towards more conducive participatory approaches to natural resources management. Furthermore, co-management is most favourable in conditions where there are strong community institutions present (Borrini-Feyerabend 1997).

Co-management entails a conscious and official distribution of responsibility, with the formal vesting of some authority (Borrini-Feyerabend 1997). This is achieved through an agreement developed by stakeholders specifying their respective roles, responsibilities and rights in management. Ballabh, Ballooni and Dave (2002) have identified the structural relationship between government institutions and community organisations as the crucial factor that determines the success of co-management of forest resources. Consequently, the effectiveness of co-management systems is dependent on the ability to formulate rules and structures in which community organisations have sufficient motivation to contribute their best. It therefore goes beyond community consultation and participation to establish more durable, verifiable and equitable forms of participation involving all relevant stakeholders in the management of resources (Borrini-Feyerabend 1997). Research on the effectiveness of institutions in the co-management of resources has shown that where these

systems have operated successfully, the “resource users themselves devised, applied and monitored rules to control and use the resources” (Ballabh, Ballooni & Dave 2002: 2163).

In addition to the formulation of rules and structures, effective management of natural resources requires compliance with rules agreed to by all stakeholders and governing institutions set up to implement these rules. Borrini-Feyerabend (1997) suggests that adequate governance depends on:

- the legitimacy of the political system and the resulting respect shown to its institutions by the majority of people, who comply with and accept the rule of law; and
- the efficacy or reliability of governing institutions (measured to some degree by the capacity of a political system to solve problems, and to achieve a consensus through compromise).

Good governance therefore entails allowing every sector of society to participate in the decision-making process and that the interests of all stakeholders should be taken into account (UNESCO 2001). In addition, good governance should recognise local people's rights to forest resources thus enabling the communities to participate in protecting and conserving forest resources (Casson & Obidzinski 2002). The importance of indigenous and local peoples' rights is increasingly being recognised since the exclusion of these people only results in conflicts, as people will continue using forestlands illegally (Dudley 1997).

Borrini-Feyerabend (1997) goes further to point out that inadequate governance can lead to:

- The use of violence by interest groups to influence public policies and institutions;
- Chronic instability of public institutions or constant change of their mandate;
- Corruption and graft of civil servants who use their public office to enhance their own economic and political interests.

Inadequate governance has an impact on compliance with the rules and regulations governing access to and use of natural resources. It promotes short-term, profit-motivated approaches to resource management and the shifting of rules and regulations. This leads to natural resources becoming inaccessible to some stakeholders (Borrini-Feyerabend 1997). Good governance, on the other hand, yields equitable, transparent and accountable institutions (Annamraju 2002). Consequently, orderly institutional structures are fundamental to effective resource management systems. As such, institutional strengthening at community level plays an important role in the success of joint forest resources management (Howitt 2001).

2.5.4 Sustainable development

Community participation contributes to sustainable development because it enables decision-makers to incorporate the views, opinions and perspectives of those affected by an initiative. The involvement of communities in an initiative and the development of skills and confidence makes people more likely to remain committed to the initiative. In addition, participation enables community members to have a better understanding of the three dimensions of sustainability, namely economic growth, social equity and ecological integrity. Through the process of participation, government is also able to gain an understanding of community members' views and concerns about trade-offs between the three dimensions of sustainability for an initiative (DWAF 2001) thus contributing to the sustainable use of forest resources.

2.6 Role of government in the management of forest resources

In many countries, the government has control of most natural resources, especially forest resources. Howitt (2001: 139) points out that government "provides the coherency required to co-ordinate the infrastructure (among others, transport, research and finances) upon which resource management systems are predicated." The government's role is usually imperative in organising resource management systems. However, governments have been inclined to centralise the management systems thus resulting in the exclusion of resource users to the decision-making and

implementation processes of resource management. This has a number of shortcomings as shown below.

2.6.1 Shortcomings of centralised management of natural resources

Decision-making, control and enforcement of regulations regarding natural resources management have tended to be centralised by governments through government agencies at national level. This has often proven ineffective, resulting in resource degradation instead of sustainable use. The lack of effectiveness of centralised agencies has been attributed to inadequate funding, large-scale bureaucracies and struggles for power and political influence (Borrini-Feyerabend 1997).

In addition, these agencies are usually located in urban centres where they are socially and geographically distanced from the resources and resource users in question. This limits the efficiency of the agencies in terms of the time taken to respond to problems arising in the local communities and results in loss of confidence from these communities (Borrini-Feyerabend 1997).

Furthermore, central governments are short of the in-depth local knowledge of resource potential and management patterns that would enable them to make and enforce appropriate management systems. In comparison, Swanepoel (1997) states that most resource users have solid, local knowledge base that can be used for development and management through participation. According to Berkes (1989), this is because local resource users are more familiar with the resources and have a broader contextual understanding of the resources.

2.6.2 Decentralisation of management of natural resources

Many countries are currently strengthening local institutions in charge of managing natural resources through decentralisation and participation. This entails devolving greater responsibilities for natural resources management and law enforcement to local governments (Borrini-Feyerabend 1997).

Community-based natural resources management entails that central governments should recognise local institutions and devolve certain powers to them, including the power to:

- make, modify and suppress rules (including who has rights to use resources and how to use them);
- enforce rules;
- monitor application and compliance with rules;
- resolve conflicts relating to these rules; and
- mobilize resources to carry out activities (Borrini-Feyerabend 1997).

Central government can decentralise or devolve powers, rights and responsibilities over natural resources management to various levels and types of structures. Amongst these are the traditional or customary authorities, locally elected community institutions and district or regional bodies. Although both traditional and elected authorities are interested in developing the local community and managing the natural resources in their areas, they are prone to conflicts if their functions and duties are not harmonised. This may result in negative impacts on the local community and the natural resource base (Borrini-Feyerabend 1997). In addition, elected, representational structures may not always support community participation. Elected representatives often forget about the community that elected them and end up representing themselves. Communities are, therefore, challenged to establish a process which allows them to regularly review the stakeholder groups, identify new ones as they emerge, and assess whether the chosen representatives still reflect the opinions of the group (Borrini-Feyerabend 1997). Nonetheless, community participation in decision-making processes ensures that local leaders are held accountable thus ascertaining a measure of efficiency in meeting local needs (Carley & Christie 1992).

Although decentralisation and devolution of government are essential for the sustainable management of resources, it has been realised that it is not generally possible or desirable to vest all management authority in the community. According to

Borrini-Feyerabend (1997) the government should always retain some responsibility, even if it only entails the provision of an overall policy framework for the management of resources. This is mainly because the state usually has the legal authority over the natural resources. Berkes (1989) further emphasises that government intervention is needed to enforce community-based rights and responsibilities. Government therefore has the role of ensuring that a legal framework incorporating the needs and concerns of local communities is in place. Howitt (2001), however, cautions against the dominance of externally driven resource management systems since they result in the marginalisation and disempowerment of local people. This contributes to the ineffectiveness of these systems. In comparison, the inclusion of local communities within equitable political institutions linked to the sustainable use of resources can overcome this failure. The benefits of involving communities in these management systems as factors contributing to effective resource management have already been highlighted in earlier sections. Gran (1983: 169 cited in Swanepoel 1997: 8) gives the following guidance in this respect: "It should be clear by now that ...development cannot and should not be externally managed. More properly, development should be but lightly guided..."

Borrini-Feyerabend (1997), nevertheless, cautions that even though decentralisation and devolution of government is a necessary condition for local involvement to occur, it is no guarantee that it will in actual fact take place. In spite of this, the overall role of government is to provide favourable conditions and appropriate forms of support for local forest resources management initiatives (Pye-Smith & Borrini-Feyerabend 1994). Through the partnership created, decision-making is vested in the communities and government provides them with the required support to accomplish their decisions thus allowing for more effective outcomes through co-management systems (Carley & Christie 1992; de Beer & Swanepoel 1998).

2.7 Case study

Ballabh, Ballooni and Dave (2002: 2153) have pointed out that "building and nurturing institutions are most challenging tasks in any development work." The following case

study illustrates factors that are considered essential in contributing to the effectiveness of partnerships between communities and government in the management of forest resources.

2.7.1 The Forest Protection Committee in Nutandihi (Chalakpara), West Bengal – India

Joint Forest Management (JFM) in West Bengal, India materialized as a result of the severe degradation of forest resources and the persistent conflicts with the government and communities living in or near forestlands (Ballabh, Ballooni & Dave 2002). Forest Officials realised the difficulty in attempts to conserve and protect the forest without local people's involvement. Subsequently, Forest Officials convinced the people to form a Forest Protection Committee (FPC) through which people were permitted free access to NTFPs. In 1989, a Government Resolution, modified in 1990, finally formalised this partnership between the Forest Department and communities. The agreement provides for: a period of five years of protection before the forest can be eligible for harvesting; the distribution of benefits which include the allocation of 25% of the proceeds of sales from timber harvests among FPC members, an entitlement to 25% of the proceeds from cutting or thinning operations, and free access to all NTFPs. JFM is thus intended to establish the vital link between the forest and the people, thus empowering them to control and manage the forest resources. The assumption, according to Ballabh, Ballooni and Dave (2002), is that as the forest-dependent communities identify themselves with the forest, a complementary relationship between the development and protection of the forest and the welfare of the people is established.

The Nutandihi (Chalakpara) FPC is composed of six executive committee members selected by the local people in the community in the presence of the Beat Officer from the Forest Department. The Nutandihi (Chalakpara) FPC has had no elections or rotational selection. The same people have held positions for 10 years, at the time of the study. The study shows that their tenure is attributable to the community's satisfaction with the performance of the FPC.

Despite the foregoing, the JFM programme faces a number of challenges. The West Bengal Forest Department outlines broad parameters within which the management practices of forestlands take place and the FPC members undertake the utilisation of forest resources according to the rules laid down by the government regulations. In addition, FPCs formed under the JFM programme are allocated degraded forests. The executive committee is predetermined and the area to be allocated and its boundaries are fixed by the Forest Department. The Department also approves micro-plans regarding methods of protection. Further, the Forest Department has the right to decide the procedures for the disposal of commercially valuable products, including NTFPs. In addition, the Department has the power to terminate FPCs and dissolve executive committees without giving any reasons. Beat Officers are also responsible for convening meetings of FPC executive committees. However, in areas where people have differing opinions to the State, the Officers avoid holding meetings.

From the foregoing, the study shows that there is substantial centralisation in the decision-making process in JFM. Further, externally imposed rules by the Forest Department that allocate resources and determine benefits may either be ignored by resource users or lead to conflicts (Ballabh, Ballooni & Dave 2002 citing Ostroum 1994). The case study illustrates that in order for the FPCs to be really vibrant organizations, their autonomy is important and there is a need for shared understanding between the communities and the Forest Department for equal footing and accountability to each other. In addition, it is important that FPCs are given a free hand in the management and protection of the forests without undue influence of the Forest Department in their decision-making process. This inclusive management strategy increases the likelihood of the communities' commitment to programmes that promote sustainable use and management of forest resources.

2.8 Summary

The general recognition of the ineffectiveness of the top-down approach that excludes local communities in the management of natural resources has led to shifts in policies. Governments are, as a result, increasingly adopting CBNRM approaches that ensure sustainable and rational utilisation, protection, conservation and management of natural resources on the one hand and community development on the other. CBNRM, including co-management, result in the establishment of “effective local institutions with the will, knowledge and capacity to manage local resources” (Jacobsohn 2003: 12). The benefits derived from these management systems such as capacity building, recognition of indigenous knowledge and improved governance culminate in the sustainable use and management of natural resources, not least of all forest resources. Improving the livelihoods of local communities also ensures sustained human development and growth of both present and future generations by relieving pressure on the resource base through sustainable use and management.

The success of co-management of forest resources is very much dependent on the goodwill and enthusiasm of both communities and governments, capacity building and appropriate support at all levels (national and community), a clear appreciation of real and perceived costs and benefits of sustainable use of forest resources and the equitable sharing of these benefits. Not the least of all factors is the willingness of governments to genuinely devolve and share power with community organisations (Ledger 2003). The following list of indicators from the literature review has been highlighted as the necessary factors for effective implementation of co-management initiatives between governments and local communities:

- ***Physical boundary delimitation:*** Clear and recognised boundaries for the area under joint management provide local communities with land security and increase their sense of responsibility and stewardship towards the forest resources (World Bank 1994; Borrini-Feyerabend 1997; RSA DWAF 2001; UNESCO 2001).

- **Representative decision-making:** Rights, rules and duties and benefits of the various stakeholders, must be clearly spelled out in order to build a sense of security and fairness. Community structures must ensure full participation of all stakeholders in decision-making in a transparent manner that encourages members to be able to implement and adhere to decisions made (World Bank 1994; Borrini-Feyerabend 1997; RSA DWAF 2001; UNESCO 2001; van der Jagt & Rozemeijer 2002).
- **Accountability:** Information must be readily accessible by all parties who participate in management decisions and control in order to build trust and ensure that decisions made are truly representative of stakeholders' interests. Trust and a shared vision encourage community members to contribute their ideas, needs, suggestions or information thus providing a source of knowledge and experience that results in the best decisions (World Bank 1994; Borrini-Feyerabend 1997; RSA DWAF 2001; UNESCO 2001; van der Jagt & Rozemeijer 2002).
- **Enforcement of agreements:** Measures adopted and agreed upon must be effectively enforced in order to avoid the weakening of the effectiveness of the management and authority of community structures (World Bank 1994; Borrini-Feyerabend 1997; RSA DWAF 2001; UNESCO 2001).
- **Good governance:** Government must transfer authority and responsibility to manage forest resources, with appropriate support, to community institutions. Communities with authority to decide how, by whom and when to use forest resources are likely to do so in a more sustainable manner (Pye-Smith & Borrini-Feyerabend 1994; van der Jagt & Rozemeijer 2002).
- **Community development:** Conservation of forest resources must result in increased benefits for the communities through improved livelihood strategies in order to promote community involvement. These include controlled sell of NTFPs and timber from thinning out activities (van der Jagt & Rozemeijer 2002).
- **Capacity building:** Communities' abilities to make informed decisions on the use and management of forest resources must be enhanced to ensure changes in attitudes and behaviours of local forest resource users (Brokensha & Hodge 1969 cited in de Beer & Swanepoel 1998; van der Jagt & Rozemeijer 2002).

- **Community participation:** community involvement must be interactive and at every level of the decision-making process in order to achieve sustainable and successful co-management (World Bank 1994; Borrini-Feyerabend 1997; RSA DWAF 2001; UNESCO 2001).

This study adopted the following indicators: good governance, representative decision-making, accountability, community development and capacity building. The assessment of the implementation of the Zambian CEMP as a participatory approach employed in the management of forest resources was based on these indicators.

2.9 Study area

Zambia takes its name from the Zambezi River, which rises in the north-west corner of the country and forms its southern boundary. It is a landlocked country located in southern central Africa and surrounded by eight countries namely the Democratic Republic of Congo, Tanzania, Malawi, Mozambique, Zimbabwe, Botswana, Namibia and Angola (Bingham 1995).

Zambia is 752 614 square kilometres in size (MTENR 2000). It comprises for the most part of a high plateau, with an average height of between 1 060 and 1 363 metres above sea level, consisting of bush and savannah. The plateau is broken by the valleys of the Zambezi and its major tributaries, of which the Kafue and Luangwa rivers are the largest (Bingham 1995). Zambia is endowed with considerable natural resources namely, water, minerals, land, forests and wild animals (MTENR 2000).

Zambia's economy is largely dependent on mining, which accounts for 63.9% of the country's export earnings and contributes an estimated 7.4% to the Gross Domestic Product (GDP). The agricultural sector also plays an important role in the country's economy, accounting for approximately 20.3% of the GDP (MTENR 2000).

Zambia's population is estimated at 10.4 million and is made up of a wide variety of ethnic and language groups. The annual population growth rate is 2.9% (Zambia Today 2003 citing CSO 2000). Although Zambia's population density is relatively low, it has one of the highest urbanisation rates in sub-Saharan Africa. Table 2.2 shows the trend in urbanisation over the years.

Table 2.2 : Trends in the percentage of total urban population in Zambia

% of total urban population		
1963	1990	2000
17.0	30.0	77.9

Source: Zambia Today 2003

Zambia has undertaken major reforms such as the structural adjustment programme (SAP) in order to transform the state-led economy to a liberalised economy. Liberalisation has been characterised by the privatisation of major industries and parastatals, which has culminated in the scaling down and rationalisation of human resources. The resultant effects have been unemployment and increased poverty in the country with the incidence of poverty estimated at 83.1% and 56.0% in the rural and urban areas respectively (MTENR 2000 citing CSO 1998). It is estimated that the country is experiencing an unemployment rate of 50% while 86% of the population are living below the poverty line (CSO 2000 cited in Zambia Today 2003).

Zambia's rich natural resource base is quickly being depleted due to improper utilisation and management. The increasing population growth and high rate of urbanisation together with rising unemployment and poverty levels, has increased pressure on the land as a source of livelihood and poses a threat to the sustainable use of natural resources that in turn, threatens the living standards of the people (MMC 2000). Among the resources under threat from indiscriminate use are forestlands as a result of deforestation.

2.9.1 Zambia's Community Environmental Management Programme

Environmental management in Zambia is still largely sectoral in nature. Different line ministries are responsible for various natural resources sectors at national level and similarly at provincial and district level. These include the Ministries of Tourism, Environment and Natural Resources (MTENR), Mines and Minerals, Food and Fisheries, Lands, Energy and Water, Education, Wildlife Management and Agriculture (World Bank 1997).

The MTENR and the Environmental Council of Zambia (ECZ), a quasi-government institution under the Ministry, have the overall responsibility of coordinating and managing environmental initiatives in the country within the National Environmental Action Plan (NEAP). The NEAP was adopted by the Zambian Government in 1994 as a framework to guide environmental management in the country. The major objective of NEAP is the integration of environmental concerns into the socio-economic development process within the country. The NEAP identified the limited capacity of the two institutions to deal with environmental issues in the country thus leading to the development of the Environmental Support Programme (ESP) (World Bank 1997). The ESP was developed in 1998 with the main objective being to "stimulate widespread interest and investment in environmental and natural resources management within a framework of economic growth" (MTENR 2002a: 9).

CEMP is one of the component parts of the ESP. The CEMP is a capacity building programme whose main objective is to strengthen institutions at community level and to facilitate community involvement in environment and natural resources management. The programme is intended to empower the local communities through the provision of information, introduction of a workable legal framework and ingestion of financial resources to address pressing environmental concerns and issues of poverty alleviation in the country. It also seeks to enable communities to take control of the development process through participation in the identification, planning and implementation of community-based environmentally sound micro-projects (MTENR 2002a,b). The identification of such micro-projects will enable communities to

address the problems of environmental degradation and poverty alleviation. The programme is intended to work towards ensuring that while communities endeavour to improve their livelihoods, they do so in a manner that promotes the sustainable use of natural resources.

2.9.2 Government ministries, departments and agencies

The formulation and development of the ESP involved the Government, both national and local levels; local and national community-based organisations (CBOs) and non-governmental organisations (NGOs); private sector institutions and donor agencies, including the World Bank, United Nations Development Programme (UNDP) and the Nordic Fund.

The MTENR has the overall responsibility for the coordination and management of the ESP and its components, including the CEMP (World Bank 1997). However, the administration of the CEMP is the responsibility of the District Council. Nonetheless, the MTENR appoints representatives of line ministries, the private sector and NGOs as members of the District Environment Committee (DEC) and District Environment Facilitators (DEFs) seconded to the Municipal Council. The line ministries include Health, Education, Tourism, Wildlife Management and Agriculture. The DEC is a sub-committee of the District Development Coordinating Committee (DDCC) which is responsible for environmental issues at district level. The District Administrator (DA), who is the head of all government departments in the district, chairs the DDCC. Area Development Committees (ADCs), Community Development Committees (CDCs) or Village Area Groups (VAGs) are set up at community level to work with the DEC in the process of implementing the CEMP (MTENR 2002a,b). Figure 2.2 shows the levels and relationships of environmental structures at the district level.

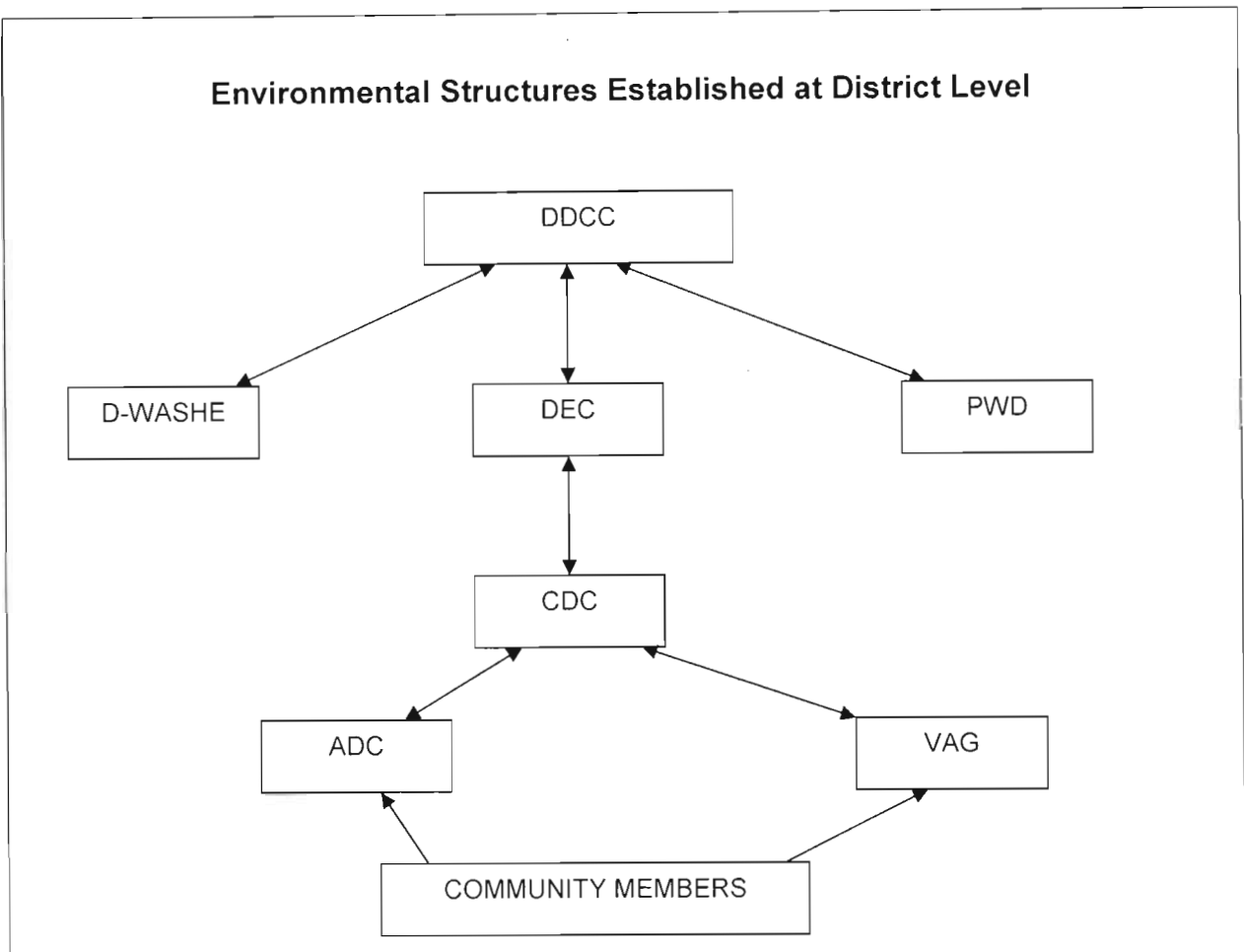


Figure 2.2 : Environmental structures established at district level in Zambia (MTENR 2002a: 22)

This study considers the implementation of the Community Environmental Management Programme (CEMP), a CBNRM approach adopted by the Zambian Government in order to address the increasing threats of environmental degradation due to human activities, with particular reference to deforestation. The MTENR has initiated the CEMP in eight districts across the country as shown in figure 2.3. The CEMP was first started in Mufulira and Mpika as pilot districts in 1998. It was then extended to Chibombo, Kafue, Mufumbwe, Nchelenge, Petauke and Siavonga districts in 2000. The programme is expected to run over ten to fifteen years. The initial five years, from 1998 to 2002, represents the first phase of the programme

(World Bank 1997). The implementation and outcomes of this phase will determine the progression to the second phase of the programme.

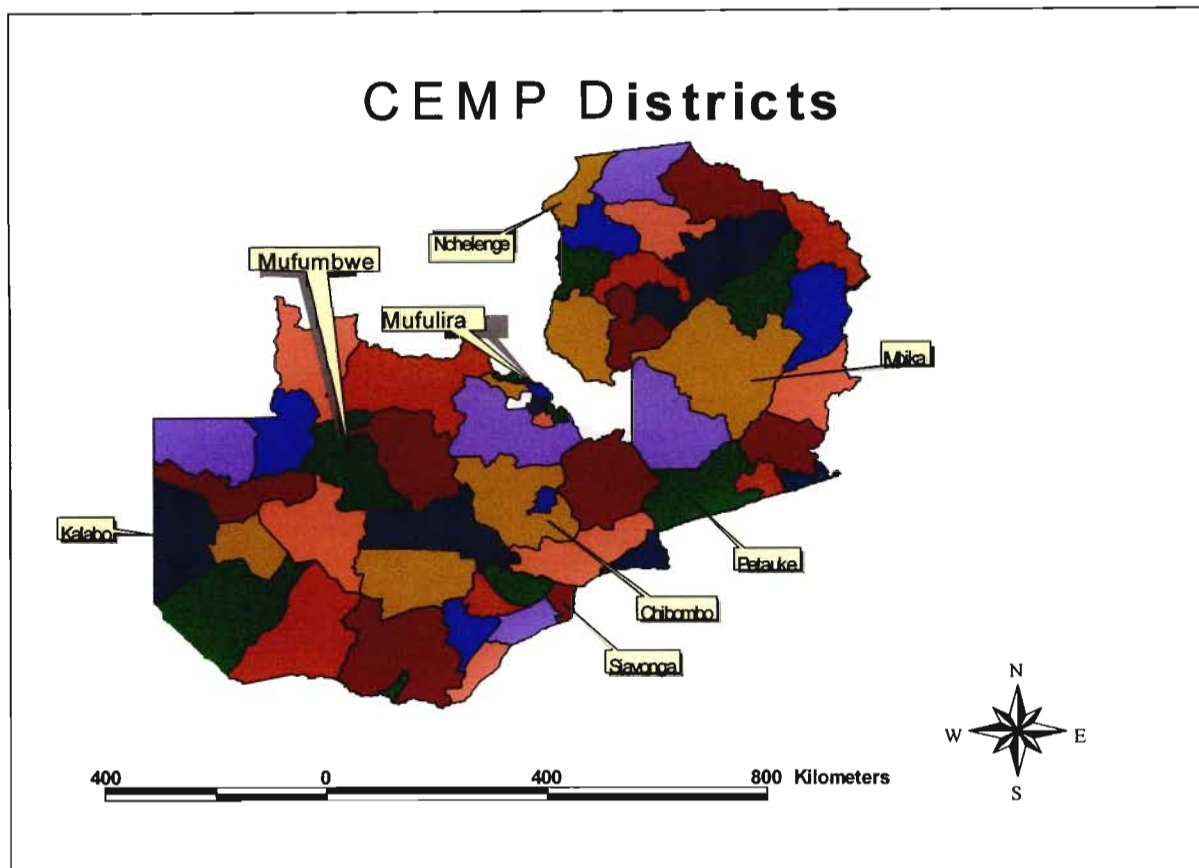


Figure 2.3: ESP pilot districts implementing CEMP (MTENR 2002)

2.9.3 Mufulira - Luansobe: location, administration and socio-economics

The study will be carried out in Mufulira district and will specifically focus on Luansobe settlement. Mufulira is situated on the Copperbelt Province, Zambia's major copper producing province, approximately 385km north of Lusaka. The town has an estimated population of 199 000 (Zambia Today citing CSO 2000).



Figure 2.4 : Map of Zambia (Zambia Today 2003)²

Mufulira has the country's deepest copper mines. The mining industry has been the major source of employment in the past for the people in the town. Unfortunately, the advent of the privatisation of the mines has led to an increase in the unemployment levels in the town. The unemployed people have turned to natural resources as a source of livelihood. However, most of the activities the households are engaged in are posing a threat to the sustainability of the natural resources and further affecting their own living standards (MMC 2000).

Mufulira was selected for the initial implementation of CEMP due to, among other indicators, existing environmental problems and poverty levels. Deforestation was one of the main problems identified and has been attributed to charcoal burning, firewood collection and clearing of land for agriculture purposes.

² The author was unable to access a more detailed map for the study area from the Local Authority, and limited time for field work prevented her from visiting other authorities.

The Copperbelt province is covered with four main vegetation types as shown in table 2.3.

Table 2.3: Distribution of major vegetation types in the Copperbelt Province

Vegetation Type	Area (km ²)	% of the Total Land
Chipya forest	1, 280	4.1
Miombo woodland	23, 760	75.8
Terminaria vegetation	640	2.0
Grassland	5, 280	16.9
Other	350	1.1

Source: MMC 2000

Grasslands are mainly distributed in dambos along rivers and streams. The main forest type in the province is the *miombo* woodland consisting of a variety of tree species including *Brachystegia*, *Julbarnadia*, *Isorbedinia* and *Uapaca*. The *Chipya* forest comprises isolated large *miombo* trees with small belts of evergreen thicket and tall trees (MMC 2000).

Charcoal burning is an activity that developed on the Copperbelt province upon the introduction of charcoal as a household fuel in 1947 (Lees 1962 cited in MMC 2000). It has become an important cooking fuel for both rural and urban households due to the increasing levels of poverty and inaccessibility to electricity. In 1990 the CSO (cited in MMC 2000) estimated that the informal charcoal production industry had about 10 000 full-time charcoal burners operating in the forest on the Copperbelt. Furthermore, it was estimated that a single person in the urban area used approximately 180kg of charcoal and 120kg of firewood per year. A population of 1.334 million in the province in 1990 consumed 240 000 tonnes of charcoal and 160, 000 tonnes of firewood, with a total wood requirement of 1.24 million tonnes (MMC 2000). The current increase in population growth, unemployment and poverty levels is thus raising the demand for charcoal and firewood, and subsequently increasing pressure on forest resources.

Luansobe is sited on state (Council) land, bounded by Mopani Copper Mines (MCM) Limited land and the Nsato Forest Reserve. It is located approximately 8km west of

the central business district. The settlement is divided into six areas namely Mushili, Shimaria, Kabanki, Kawama, Ngolo and Mama with an estimated 2 052 housing units. The livelihoods of most community members are as charcoal producers, subsistence farmers, formal employment (mainly security services) and informal employment (MMC 2000). These can be divided into natural and non-natural resource based livelihood strategies as shown in table 2.4.

Table 2.4 : Livelihood strategies

Natural resource based	Non-natural resource based
<ul style="list-style-type: none"> • Charcoal production • Subsistence farming • Reed mat making • Carpentry • Fishing • Mushroom collection/selling • Basket making • Traditional medicines • Illicit beer and <i>Munkoyo</i> brewing 	<ul style="list-style-type: none"> • Market/roadside vending • Selling assorted items in <i>Tuntembas</i> (semi-permanent stalls) • Working as house servants • Working as security guards • Brick laying • Repairing bicycles, radios and shoes

Source: MMC 2000

The main livelihood activities of charcoal production and agriculture are having negative impacts on Nsato Forest Reserve as communities encroach on the forestlands and clear the land. The forest reserve, covering 15 000ha, is shared between Mufulira and Chililabombwe districts, each having 8 000 and 7 000ha respectively. Nsato Forest Reserve is considered to be of great importance both ecologically and socially since it is a major catchment area for many streams that feed into the Kafue River (MMC 2000). In addition, encroachment into the forest could lead to the development of grasslands that have few ecological, social and economic values (Casson & Obidzinski 2002). Table 2.5 shows the main livelihood activities that are having negative impacts on the forest reserve.

Table 2.5: Benefits and negative impacts of livelihood activities on the forest resources

Livelihood	Benefits	Negative impacts
Charcoal production	Money Employment	Forest encroachment Deforestation Depletion of wildlife and NTFPs Soil erosion
Subsistence farming	Food Money Employment	Deforestation Soil infertility Forest encroachment
<i>Munkoyo</i> (traditional beer) and illicit beer brewing	Money Employment	Cutting tree branches and roots used for beer brewing

Source: MMC 2000

Due to the importance attached to Nsato Forest Reserve and the concerns raised over the impacts of deforestation, Luansobe was selected as one of the communities in Mufulira district in which the CEMP is currently being implemented in order to address the problem of deforestation with the involvement of the communities.

2.10 Summary

CEMP is designed with the premise that although the environment and natural resources in the district, including forest resources, are degraded this situation can be improved with good management systems in place. Furthermore, the involvement of local communities in a manner that will lead to the generation of wealth and poverty reduction is considered by the Government as an important factor in the rehabilitation of the degraded environment. Consequently, this study is aimed at assessing the effectiveness of the implementation the CEMP as a participatory approach adopted by the Zambian Government in addressing the problem of deforestation and related poverty alleviation with particular reference to Luansobe settlement.

3 METHODOLOGY

3.1 Introduction

The term 'method' refers to the specific approaches, techniques or tools used to collect and analyse data (Bailey 1982). This study employs a case study approach to review the implementation of community-based programmes in the sustainable use of forest resources and poverty alleviation within the communities. Although the Community Environmental Management Programme (CEMP) is currently being implemented in eight districts across Zambia, this study will only examine one settlement in Mufulira district due to constraints in terms of time and funding. A case study approach is being used because case studies use the logic of analytical induction, and researchers consider the specific context of the case and examine the configuration of its component parts. They help to connect the micro-level (actions of individual people), to the macro-scale (large-scale social structures and processes) (Neuman 1999).

The research is descriptive, analytical and evaluative in nature. It attempts to identify and document the concept of community-based natural resources management (CBNRM), its relevance in the sustainable use of resources, forest resources in particular, and the perceived improved livelihoods of local communities. The study also assesses the purpose for the establishment of the CEMP and the resultant impacts/effects of its intervention (Terre Blanche & Durrheim 1999), based on the case study.

This study employed qualitative methods of data collection which include semi-structured interviews; two workshops; direct observation; and a review of written documents. Qualitative research allows the researcher to approach the study without any constraints of predetermined categories of analysis thus contributing to the depth, openness and detail required in evaluative research (Patton 1990). Qualitative methods also enable the researcher to take peoples' experiences into account and in

so doing, gain a better understanding of their experiences (Terre Blanche & Durrheim 1999).

3.2 Methods of observation and data collection

The following methods of observation and data collection were adopted in conducting the research.

3.2.1 Literature review

A review of relevant literature was conducted to show the theoretical themes necessary to develop a conceptual framework to be used in the research. The review highlighted the problem of deforestation: causes and consequences; the concept of CBNRM in relation to the management of forest resources: the role of government and the communities; and factors contributing to the successful implementation of CBRNM programmes. An international case study on the implementation of CBRNM programmes was also reviewed in order to “illustrate, substantiate and explore the implications” (Howitt 2001: 193) of community involvement in the management of natural resources.

A review of relevant secondary data was conducted to show the characteristics of the study area. Government documents on the CEMP were also examined in order to establish the institutional structures and legal framework in place, at national and community level, for the implementation of the programme. This assisted the researcher in determining the stakeholders involved in the implementation process, with particular reference to the extent of community participation.

3.2.2 Interviews

Interviews provide for a more natural form of interacting with people thus enabling the researcher to gain more insight into the prevailing situation (Terre Blanche & Durrheim 1999). Semi-structured interviews were therefore conducted with key informants from government departments, District Development Coordinating

Committee (DDCC), District Environmental Facilitator (DEF), District Environmental Committee (DEC) and community level environmental committees in order to determine the institutional structures under which the CEMP is being implemented. The interviewees provided the researcher with information on the composition, duties/roles and responsibilities of various stakeholders. A set of leading questions was used to engage interviewees and allow the interviewer to utilise follow up questions for in-depth discussions on areas of interest. Interviewees were purposively selected from the aforementioned groups of stakeholders. The researcher used snowball sampling by obtaining referrals from initial groups of interviewees (Neuman 1999). This process ensured that those responsible for the implementation of the CEMP and the beneficiaries of the programme were represented. This enabled the researcher to analyse the effectiveness of the programme from both the implementers' point of view and that of the end-recipients' of the programme.

3.2.3 Workshops

Two workshops were conducted with key stakeholders in order to create a relaxed, flexible and open atmosphere for data collection from a wide variety of people with different levels of literacy and understanding of forest resources management issues. This provides the researcher with data on the importance of forest resources to the communities; the attitudes of local people towards the implementation of the CEMP; the utilization of forest resources since the inception of the programme; and the impact of the programme on the livelihoods of the communities, in terms of poverty reduction.

3.2.4 Direct observation

Direct observation was used to assess the environment and the impacts of community activities engaged in since the inception of the CEMP in addressing deforestation. A description of stakeholders' actions and activities was documented through field notes and photographs.

The relationship between the methods that will be used and the objectives of the study are shown in table 3.1.

Table 3.1 : Summary of relationship between methods and study objectives

Objectives	Concept of CBNRM and community participation in forest resources management	Indicators for assessing CEMP	Institutional structures at community level	Sustainable livelihood strategies and forest management emanating from implementation of CEMP
Methods	Literature review	Literature review	Literature review of government documents Semi-structured interviews	Semi-structured interviews Workshops Direct observation
Sources/target groups	Books, journals and reports/paper presentations	Books, journals and reports/paper presentations	Government documents and policies Personnel from government institutions, DDCC, DEF, DEC and community organisations	Personnel from government institutions, DDCC, DEF, DEC, community organisations and community members

The research process entailed the identification of the problem of deforestation in Zambia with particular reference to Mufulira district. The need to adopt a participatory approach in addressing deforestation was documented. A review of literature on the concept of CBNRM as a participatory approach was conducted leading to the determination of indicators that were used in assessing the effectiveness of the CEMP as a participatory approach. Institutional structures governing the implementation and management of the CEMP were also identified through review of government documents and interviews with relevant officials. Information on the actual implementation of the CEMP and its impact in addressing deforestation was gathered through interviews, a workshop and direct observation. The process through which the research was approached is shown in figure 3.1.

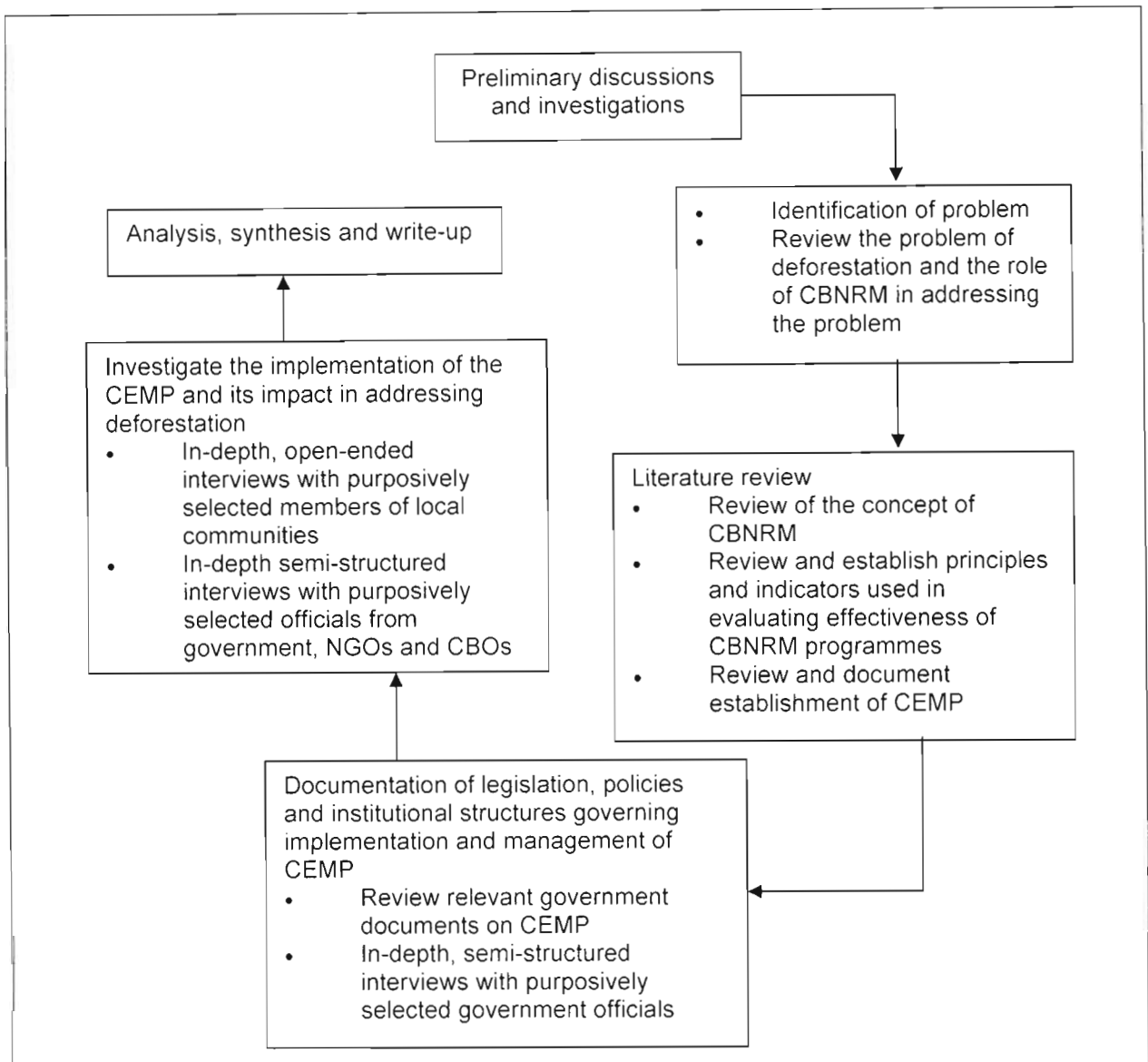


Figure 3.1 : The research process

3.3 Assumptions and anticipated problems

The researcher was faced with difficulties in accessing all the relevant information and data on the CEMP due to the limited time that was set aside for data collection (27th October to 30th November 2003). Furthermore, even though prior arrangements were made to meet the relevant stakeholders, the researcher was forced to reschedule some meetings due to the unavailability of the people. The researcher had a particularly difficult time meeting the community members for workshops since the data collection was done at the on-set of the rainy season. Most people in the

communities had left the settlements to begin tilling the land in far off fields. Nonetheless, a sufficient number of community members were able to attend the workshops and contributed effectively.

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COMPONENT B

**AN ASSESSMENT OF THE IMPLEMENTATION OF THE COMMUNITY
ENVIRONMENTAL MANAGEMENT PROGRAMME IN ZAMBIA:
A CASE STUDY OF LUANSOBE SETTLEMENT - MUFULIRA DISTRICT**

by

NELLY MWANGO

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ABSTRACT

In order to address the twin problems of poverty and environmental degradation, the Zambian Government introduced the Community Environmental Management Programme (CEMP) in 1998 in eight pilot districts across eight of the nine Provinces in the country. The CEMP aims to involve local communities in controlling the use and management of natural resources in a sustainable manner while improving livelihoods. This paper reviews the implementation of the CEMP in four communities in one of these districts using a set of community-based natural resources management (CBNRM) indicators considered necessary for the effective implementation of participatory approaches. Based on these indicators, the findings show that the institutional structures set up under CEMP are weak and not functioning effectively. This has had negative effects on the representativeness of decisions made regarding the implementation of the programme and accountability of leaders to community members. It has also affected the implementation of projects under the CEMP intended to improve people's livelihoods through alternative sources of income that promote the sustainable use of forest resources.

INTRODUCTION

Zambia is faced with environmental degradation due to the negative impacts of human activities. The management of the environment and natural resources in the country is problematic (MTENR 2002a). The World Bank (1997) put poverty at

the core of environmental degradation in the country stating that degradation arises from the lack of alternatives in people's survival strategies as well as inadequate understanding of the consequences of degradation. The growing poverty levels, presently estimated at 80% of the population, have resulted in increased pressure on the available natural resources as people strive to make a living (MTENR 2002a).

In order to address these problems, the Zambian government developed the Environmental Support Programme (ESP) in 1998. The ESP is implementing the recommendations of the National Environmental Action Plan (NEAP), which was adopted by the Zambian Government in 1994 as a framework to guide environmental management in the country. The overall objective of NEAP is the integration of environmental concerns into the socio-economic development process within the country. This objective was in line with the CBNRM initiatives that began in southern Africa in the mid-1980s with shifts in policies to devolve control over natural resource to a more local level, ideally to those living with the natural resources (Schaffer and Bell 2002, citing Murphree 1997). Local level development was designed to address the poverty and inequalities among rural populations believed to have resulted from centralised, non-local control of resources, and which in turn was contributing to environmental degradation.

Deforestation has been identified as a major environmental concern in the country attributable mainly to human activities such as charcoal production and collection of firewood as a source of domestic energy and income generation. This situation is further compounded by “inadequate enforcement, inadequate management structures, poor coordination among stakeholders and lack of community incentives and a supportive legal framework to participate in the management” (MTENR 2002a: 17) with respect to forest resources.

One of the component parts of the ESP is the Community Environmental Management Programme (CEMP), a capacity building programme whose main objective is to strengthen institutions at community level and to facilitate community involvement in environment and natural resources management. The programme is intended to empower the local communities through the provision of information, introduction of a workable legal framework and ingestion of financial resources to address pressing environmental concerns and issues of poverty alleviation. It also seeks to enable communities to take control of the development process through participation in the identification, planning and implementation of community-based micro-projects (MTENR 2002a,b). Through the identification of micro-projects that will be of benefit to both communities and the environment, the programme aims to address the problems of environmental degradation and poverty alleviation.

The CEMP intends to put in place structures responsible for the coordination of environmental issues at national, district and community levels and the reduction of

poverty, with the support of the donor community (MTENR 2002a,b). The programme is designed with the premise that the environment and natural resources in the country, including forest resources, are degraded but this situation could be improved with good management systems in place. The implementation of the programme, with the involvement of local communities in a manner that will lead to the generation of wealth and poverty reduction, is thus expected to contribute to the rehabilitation of the degraded environment.

This paper reviews the implementation of the CEMP. It focuses on Mufulira district, one of eight districts in the country where the CEMP is being implemented as a pilot programme (see figure 1). Two key questions have been raised to direct the focus of this paper:

- i. Has the CEMP facilitated the implementation of a legal framework and the provision of financial resources to address the concern of deforestation at a community level whilst at the same time addressing issues of poverty reduction?
- ii. Has the CEMP empowered local communities to take control of development initiatives and the sustainable management of forest resources?

Based on these questions, the aim of the study was to assess the performance of the CEMP in terms of empowering peri-urban communities in the Mufulira District to address concerns of deforestation and the programme's contribution to poverty alleviation. In light of this aim, the main objectives of the study were to:

- i. Compile a set of indicators and use these to assess the effectiveness of the CEMP;
- ii. Identify institutional structures and the legal framework in place to promote capacity building and community involvement in the implementation process of CEMP; and
- iii. Examine the role of CEMP in facilitating poverty reduction in relation to the sustainable use of forest resources at community level.

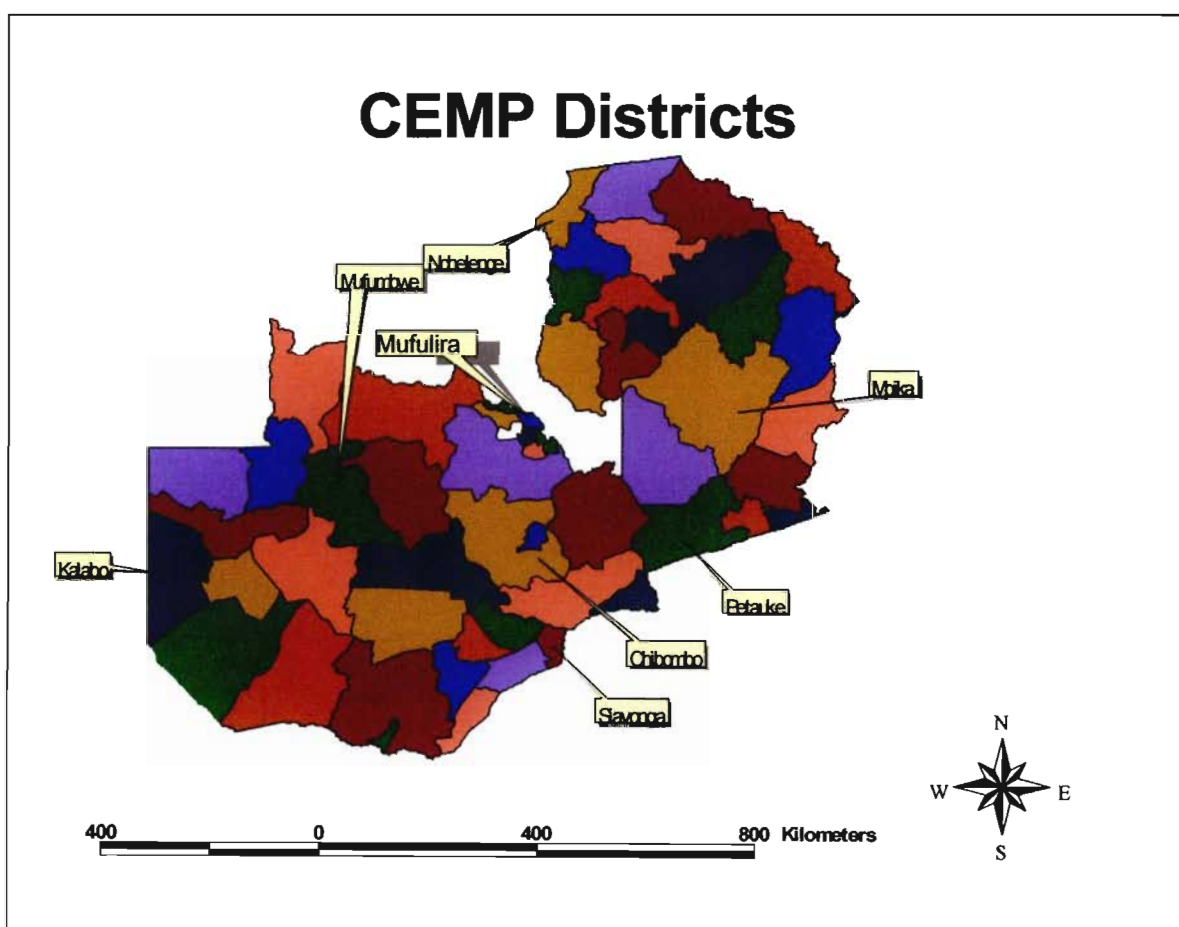


Figure 1: ESP pilot districts implementing CEMP in Zambia (MTENR 2002)

CONCEPT OF COMMUNITY-BASED NATURAL RESOURCES MANAGEMENT (CBNRM)

There have been growing concerns regarding environmental degradation as a result of human activities. There is now a recognition that sound environmental and natural resources management is necessary for sustainable development (SIWI 2002). Furthermore, policy-makers have realised that top-down management systems are proving to be ineffective (Berkes 1989). This has resulted in policy shifts towards sustainable and rational utilisation, protection, conservation and management of natural resources based on community needs and priorities within national development frameworks (UNDSD 1999).

Public participation continues to remain in the spotlight as a feasible and realistic approach to natural resources management. One expression of this approach is reflected in the concept of community-based natural resources management (CBNRM), defined as the “conscious and organised local efforts to durably maintain or increase the regenerative capacity of local natural resources” (van den Breemer, Drijver & Venema 1995:4). CBNRM seeks to entrust decision-making power and responsibilities to the local communities. It requires the establishment of local institutional structures and systems to maintain and develop natural resources and effectively promote desirable behavioural changes (Chambers 1983; Cernea 1985 cited in van den Breemer *et al* 1995).

One form of CBNRM that is regarded as being inclusive of communities is co-management. Co-management entails a partnership among different stakeholders through shared responsibility of the management of natural resources (Borrini-Feyerabend 1997; Ballabh, Ballooni & Dave 2002). Governments are increasingly considering the involvement of local people in planning and implementation as a basis for effective sustainable resources management (van Riet & Groothuis 1999).

Community participation, nonetheless, does not just end at engaging the local people in programmes and initiatives. Governments are also required to create legally secure conditions and provide financial assistance which enables communities to invest in their natural resources and simultaneously, receive financial or material returns from these investments (van den Breemer *et al* 1995). This leads to the strengthening of the capacity of local communities and officials through interaction with each other and enhances the overall quality of governance. Capacity building also increases community ownership and empowerment furthers institution building to organise community management structures. Importantly, it builds alliances to engage in macro-level natural resources management (Annamraju 2002).

Co-management as a participatory development approach focuses on:

- *Conservation*: it is concerned with the wise and sustainable use of natural resources;

- *Community development*: it promotes income generation or improved livelihoods through better resource management; and
- *Democracy and good governance*: it involves the devolution of authority from central government to communities, and the development of accountable and representative decision-making institutions at community level (van der Jagt & Rozemeijer 2002).

Consequently, community participation in the actual implementation of sustainable forest resources utilisation and management is a key factor in overcoming the problem of deforestation through conservation while at the same time contributing to the improvement of livelihoods through community development.

Although decentralisation and devolution of authority are essential for the sustainable management of resources in co-management initiatives, it is not generally possible or desirable to vest all management authority in the community (Borrini-Feyerabend 1997). Government has the role of ensuring that a legal framework incorporating the needs and concerns of local communities is in place (Berkes 1989). Howitt (2001), however, cautions against the dominance of externally driven resource management systems since they result in the marginalisation and disempowerment of local people. External management leads to a lack of representation of local communities at all levels of the decision-making process, from the planning phase to the implementation and evaluation phase.

This form of management, furthermore, contributes to the needs and concerns of the local people not being addressed, resulting in ineffective management systems. Schroeder (1999) points out that the major factor contributing to the success in promoting CBNRM entails a genuine devolution of power from national authorities to local communities, and the development of planning and negotiation processes that facilitate substantive contact between the two parties.

Co-management is fundamental in the sustainable management of forest resources based on the following reasons:

- There is an increased likelihood of commitment by resource users and other stakeholders once they are sure about their involvement in the management arrangements and decision-making bodies established (Borrini-Feyerabend 1997). Research has shown that developmental efforts and results are not supported where communities do not participate in the establishment of programmes. This leads to failure in the sustenance of sustainable forest resources management programmes (Swanepoel 1997). Importantly, community participation lends credibility and legitimacy to decisions, and therefore, the likely resultant actions because they will derive from a broad-based and participatory process. Consequently, more inclusive management strategies become easier to implement with stakeholder support (Cain 2001).
- More effective action can be obtained from the decentralisation of management responsibility and vesting authority in community institutions as partners in joint

management (Borrini-Feyerabend 1997). Many communities readily embrace opportunities to take part in resource-based economic activities on more equal terms (Howitt 2001).

- Through power sharing, there is the resultant effect of community empowerment and the development of local institutions that contribute to social development (Borrini-Feyerabend 1997). Power sharing thus leads to capacity building. Hough (2003 *unpublished*) describes capacity building as a process of transformation by which communities and institutions develop their abilities to perform functions, solve problems, and set and achieve their own goals. This process thus results in changes in attitudes and behaviours of local resource users towards the use and management of forest resources. Furthermore, institutional capacity building leads to clarification of structures, responsibilities, accountabilities and reporting lines thus reducing incidences of conflicts among stakeholders.

Indicators for effective co-management programmes

A number of indicators have been formulated on which sustainable and successful CBNRM systems, including co-management, should be based. Table 1 shows the critical indicators selected for the purposes of this study.

Table 1: Indicators for effective co-management programmes

Indicators	Attributes	Value
Good governance	<ul style="list-style-type: none"> Decision-making authority at community level Government transfers some authority and responsibility with appropriate support to community institutions 	<ul style="list-style-type: none"> Communities decide how, by whom and when to use forest resources in a more sustainable manner
Representative decision-making	<ul style="list-style-type: none"> Rights, rules, duties, and benefits of stakeholders clearly defined Community structures ensure full participation of stakeholders in decision-making and transparency 	<ul style="list-style-type: none"> Builds a sense of security and fairness. Encourages members to implement and adhere to decisions made
Accountability	<ul style="list-style-type: none"> Leaders of community institutions accountable for decisions made regarding the use of community resources Information readily accessible by all parties participating in management and control of resources Decisions must be representative of community members' views 	<ul style="list-style-type: none"> Builds trust and ensures that decisions made are truly representative of stakeholders' interests Trust and a shared vision encourage community members to contribute their ideas, needs, or information Provides source of knowledge and experience that results in the best decisions
Community development	<ul style="list-style-type: none"> Benefits of programmes must outweigh costs to communities 	<ul style="list-style-type: none"> Conservation of forest resources results in increased benefits for communities through improved livelihood strategies
Capacity building	<ul style="list-style-type: none"> Enhances communities' abilities to make informed decisions on the use and management of forest resources 	<ul style="list-style-type: none"> Ensures changes in attitudes and behaviours of local forest resource users

Source: After: Pye-Smith and Borrini-Feyerabend 1994; World Bank 1994; Borrini-Feyerabend 1997; Brokensha & Hodge 1969 cited in de Beer & Swanepoel 1998; RSA DWAF 2001; UNESCO 2001; van der Jagt & Rozemeijer 2002

Sustainability of the programme has been added as an indicator by the researcher because information obtained in the field shows that it is an important aspect for the continued implementation of the CEMP and community participation and support.

STUDY AREA

The study was conducted in Luansobe settlement, Mufulira district, on the Copperbelt Province of Zambia (see figure 1). Luansobe is situated on state (Council) land, bounded by Mopani Copper Mines (MCM) Limited land and Nsato Forest Reserve. The settlement is divided into six areas namely Mushili, Shimaria, Kabanki, Kawama, Ngolo and Mama with an estimated 2 052 housing units. The livelihoods of community members are shown below in table 2.

Table 2: Livelihood strategies³

Activity	Criteria for preference
Charcoal production	Highly profitable; there is a ready market in urban areas; it is also a source of domestic energy among local communities
Trading in the market	One gets to make some money everyday to take home; the amount of time spent is quite minimal i.e 8 – 10 hours per day; does not require hard labour
Poultry farming	It is quite profitable; does not require hard labour; time taken before one can benefit from initial sales is minimal i.e 2 – 3 months; ready market in urban areas
Cultivating and selling farm produce	It is profitable; can grow different crops during different seasons; amount of time taken and labour required varies from crop to crop; also a source of food for households
Part-time employment in urban areas (domestic servants, shop attendants, etc)	It is quite profitable; are able to earn money weekly or monthly; mainly short-term to medium-term contracts
Bee keeping	It can be quite profitable considering the price of honey in most shops in urban areas; requires quite a bit of labour; takes long time before one can benefit from initial sales; can work well with the Department of Forestry; honey can be used for medicinal purposes and wax can be used in making candles and soap

³ Preferences of livelihood strategies, in order of importance, as shown by community members at the workshops conducted during the research

Activity	Criteria for preference
Wood crafting, basket making and clay moulding	It is quite profitable; benefits are realised within a short period; not labour intensive; but markets for products mainly found in urban areas which are distant from community
Fish farming	Can be profitable considering the price of fish in shops and markets in urban areas; requires a bit of labour; takes some time before initial benefits can be realised
Traditional beer brewing (<i>munkoyo</i>)	It is not very profitable; does not require a lot of labour; benefits a few days to be realised
Collecting wild fruits and food from forest	It is not very profitable; it is seasonal; also a source of food for community members
Establishing orchards	This will be profitable since fruits sell quite well in the urban areas; fruits can also be used by community members for better health; but it takes a long time before initial benefits can be realised

Source: Mwango 2003 (*unpublished*)

The main livelihood activities of charcoal production and agriculture are having negative impacts on Nsato Forest Reserve as communities encroach on the forestlands and clear the land. Nsato Forest Reserve is considered to be of great importance both ecologically and socially since it is a major catchment area for many streams that feed into the Kafue River (MMC 2000), an important source of domestic and industrial water and hydro-electric power for the industrial towns of the Copperbelt and Lusaka Provinces. It also supports various species in the Kafue National Park and along its entire length. In addition, encroachment into the forest could lead to the development of grasslands that have fewer ecological, social and economic values than forests (Casson & Obidzinski 2002).

METHODOLOGY

The study focused on four communities of Luansobe where the problem of deforestation is considered to be high, namely Mushili, Shimaria, Mama and Ngolo. Data on the implementation of the CEMP in these communities was gathered as follows: review of documents on the implementation of the CEMP; semi-structured interviews with key informants from government departments, District Development Coordinating Committee (DDCC), District Environmental Facilitator (DEF), District Environmental Committee (DEC); and two workshops with the local communities, employing PRA methods facilitated by the researcher and local experts.

Although semi-structured interviews have the advantage of allowing the interviewer flexibility in wording and sequencing pre-determined questions, they may result in different responses from different people, thus reducing comparability. To overcome this situation, the researcher exercised great caution by adhering to the pre-determined list of questions as far as possible for all interviewees. In order to avoid bias in selecting key informants, the researcher used a snowball sampling technique, obtaining referrals from initial interviewees. Finally, in conducting workshops, the researcher used community interviews where all members in attendance debated questions put across before reaching a consensus. However, this form of interview has the tendency of being dominated by the literate or community officials and those who are most confident. To counter this, the researcher also used focus group interviews of relatively homogeneous people

such as charcoal burners and farmers. This step enabled more people to participate fully in smaller groups.

FINDINGS AND ANALYSIS

Based on the aforementioned indicators, the study considers the governing institutions put in place, the representativeness of stakeholders' interests in these institutions and the accountability of national, district and community leaders to community members. It further examines the extent of community development and capacity building as a result of the CEMP.

Good governance

The CEMP has established a number of governing institutions at national, district and community levels to implement the programme. These bodies are intended to operate integrally with the local communities, jointly identifying the environmental problems in community areas as well as possible solutions which are then taken up through the structures for approval and funding. The structure is designed to facilitate a two-way flow of information that provides feedback throughout the planning, decision making and implementation process as shown in figure 2. However, the researcher established that some of these institutions at district and community levels were either physically not well established or not functioning as illustrated in the Venn diagrams shown in figure 3. The institutions that have a good working relationship with the community are placed within the community

circle while those that are either not known or not functioning are outside the community circle.

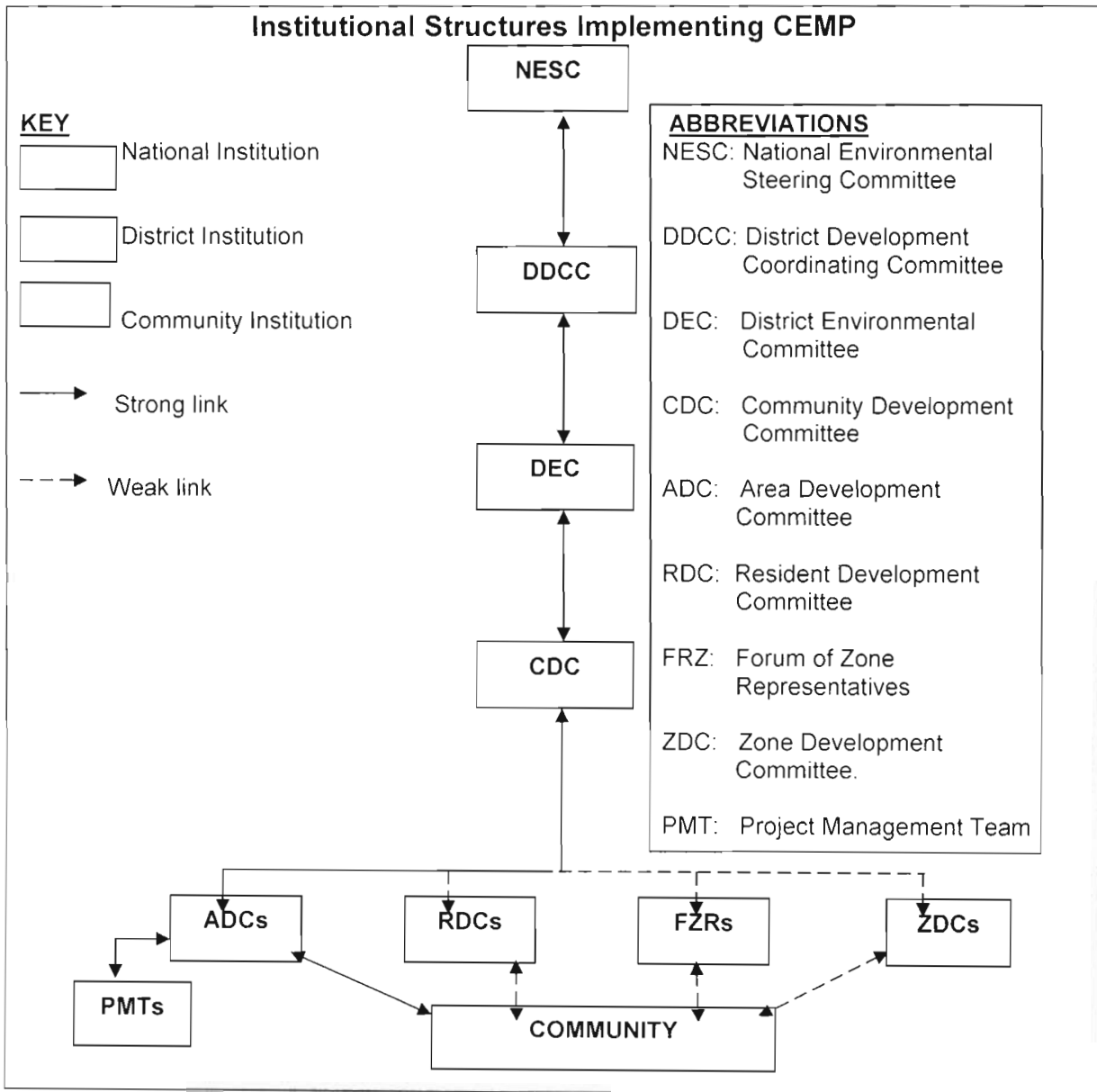


Figure 2: Institutional structures implementing CEMP as originally set up

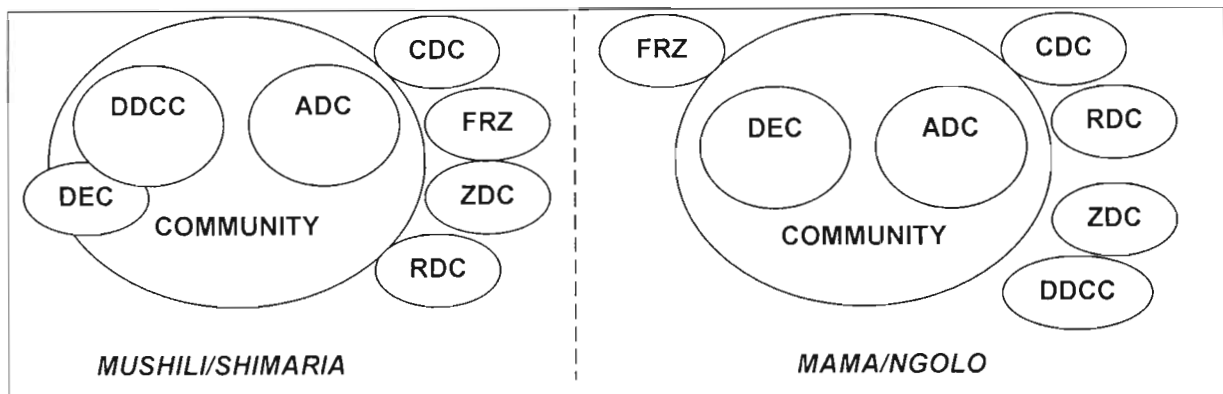


Figure 3: Institutional structures of CEMP as seen by the Luansobe community

The DEC, which is supposed to be the main link between the communities, district and national institutions has a good working relationship with Mama/Ngolo communities but is not well established with the Mushili/Shimaria communities due to poor communication with these communities. At present, communication between the DEC and the communities is mainly due to the efforts of the DEF, the only official from the DEC who visits the communities.

Another important observation made from the Venn diagrams is that despite being the main body at district level overseeing the implementation of CEMP, the DDCC has only established a working relationship with the Mushili/Shimaria communities. The ignorance of this important body in the Mama/Ngolo communities can again be attributed to poor communication and lack of visitation from the committee members to these areas. Further analysis of information gathered shows that the DDCC has no direct interaction with the national institution since the DEC is the only body at district level that meets with the NESG (Lungu 2003 *pers. comm.*).

This is considered a major drawback in the implementation of the programme by the DDCC (Mainza 2003 *pers. comm.*).

The inability of the two district bodies to establish good working relations with the communities can be attributed to the failure by the leadership at all levels to develop a process of regular meetings through visits to the communities at which projects can be evaluated and the interests of people addressed. This process would also build on the capacity of community members, regarding the implementation of the programme, through monitoring exercises by the technical experts from national and district institutions.

The CDCs and RDCs, formed in January/February 2003, were found not to be functioning in the communities in September when this study was conducted. Members of these bodies attributed this to apathy shown by members of the community whenever meetings are called mainly as a result of the loss of interest and commitment to the programme. The FZR and ZDC, were identified by the national office in Lusaka as key bodies tasked with identifying community problems early and bringing them before the RDC and ADC. These bodies have not been established.

A careful analysis of information gathered from all stakeholders reveals that the institutional structures through which the CEMP is being implemented is as shown in figure 4 below.

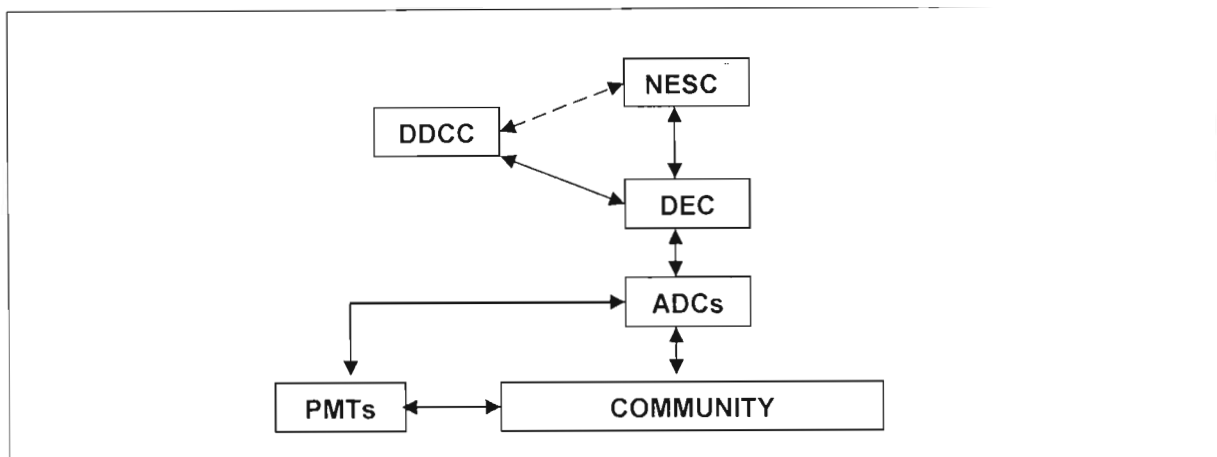


Figure 4: Institutional structures implementing CEMP at the time of study.

The findings are an indication of poor governance. There are no clear communication links within the structures and thus no consistent flow of information on the implementation of the programme. Furthermore, there is no knowledge of the national level institution and understanding of the functioning of the overall structure by local community members. In addition, no legal framework has been introduced to enable the community institutions to enforce rules and regulations on the sustainable utilisation of forest resources. The CEMP has merely devolved responsibility and not authority over forest resources to community institutions. Devolution of authority requires a well-defined community institutional structure with a strong internal legitimacy at community level as well as external legitimacy at district and national levels through appropriate policies and enabling legislation (Jones & Murphree 2001). Due to this deficiency in the community institutional structures, some community members have continued with environmentally degrading and illegal activities like charcoal burning. Institutions are not strong enough and lack the respect of the majority of the people.

Representative decision-making

Rights, rules, duties and benefits of stakeholders must be succinctly articulated and representative in order to build a sense of security and fairness among community members (World Bank 1994; Borrini-Feyerabend 1997; RSA DWAF 2001; UNESCO 2001). Participation of all stakeholders in decision-making must be ensured through community structures in a transparent manner. This encourages members to be involved in the implementation of the programme and to adhere to decisions made (van der Jagt & Rozemeijer 2002).

It became evident from the community workshops that people were involved in choosing projects but were excluded from the critical process of setting budgets for the projects. Furthermore, the location of certain projects was decided outside of community structures. For example, the bee-keeping project had failed because the site is not favourable for bee-keeping and was not agreed to by the community members.

The exclusion of the community in the decision making process can be attributed to the absence of community representation on the DEC and DDCC. Where community members are not fully represented, they perceive themselves to be unfairly treated and thus lose respect and confidence in the community institutions. Furthermore, non-representation undermines the authority and ability of the

institutions to enforce rules and regulations (Jones 2001). Consequently, community members in Luansobe have assumed that, since they are not involved in making key decisions that affect them, as these are made at district level, their opinions are not adequately considered.

Since the DEC is the main link between the community and district institutions, representation from the community would greatly assist in reducing what the community perceives as delays which arise when community project budgets are addressed. The community representatives would not only help explain the budget during these meetings, thus hastening the approval and forwarding of these budgets to the national office, but would also keep the community well informed of what is happening. The community's interests would also be best served by their own representatives at this level.

According to Howitt (2001), most communities are more likely to participate in developmental programmes on terms of equality. Bottom-up approaches therefore need to involve the whole community in the implementation process (Jones & Murphree 2001). The CEMP in Luansobe thus needs to build confidence and security among community members by allowing for community representation at district level. This will build a more transparent and representative decision making process.

Accountability

In order for leaders of community governing institutions to be accountable for decisions made regarding programme implementation and the use and management of forest resources, information must be readily accessible by all stakeholders. This builds confidence and trust among community members and ensures that decisions made are representative of all stakeholders' interests (World Bank 1994; Borrini-Feyerabend 1997; RSA DWAF 2001; UNESCO 2001).

The design of the CEMP institutional structures is intended to ensure that all leaders in the institutions are accountable to the community through the two-way flow of information. However, there is a deficiency in communication between the community, district and national officials which limits the community's access to information. This can be attributed to the lack of representation of the community at district level.

Community members in Luansobe pointed out that apart from the DEF, other district and national leaders do not visit the community to monitor the progress of the projects. They only visit the area when funds are available for their allowances which inevitably calls into question their commitment to the programme. This shows that there are no set procedures for the monitoring and evaluation of projects by officials at national and district levels. According to Kangwana and Ole Mako (2001), frequent visits to project areas by programme facilitators and

coordinators raise community interest and build closer relationships with community members. However, this is not the case in Luansobe. Community members are of the opinion that the officials are only interested in financial rewards and not their needs. This has resulted in loss of confidence and trust in the officials to address their needs and interests.

The aforementioned perception led the Mama/Ngolo ADC and some community members to illegally access and unilaterally sharing community funds among themselves since they were not receiving immediate benefits from the projects. Furthermore, they felt that they had a right to do this since this was their money for their projects. Unfortunately, the ADC was taken into police custody after they failed to account for funds. The ADC leaders and other community members involved are now paying back this money before any further funding can be disbursed to the community. It is clear that there is no accountability of leaders at all levels of governance due to a breakdown in communication in the structures. Furthermore, the problem of able leadership highlights a key constraint in stimulating people to act in the desired manner to ensure effective implementation of the programme (Pye-Smith & Borrini-Feyerabend 1994).

Community development

The projects initiated by the Luansobe communities were medium to long term and would not have given the community immediate tangible returns. Although the

projects were started in the last quarter of 2001, fish from the fish farms was only ready for harvesting in early 2003 and honey from the bee-keeping project would have been ready in November the same year. The orchard and tree planting projects were projected to mature after 3 to 5 years and 10 to 15 years respectively. At the time the trees were being planted, in the last quarter of 2002, construction of a well to supply water for the trees commenced. However, at the time of the study, the well was incomplete due to suspension of funds. This has resulted in the drying up of the trees as shown in plates 1 and 2. Community members feel particularly let down after spending all their efforts and time in clearing the site and planting the trees with the hope that the fruits would be ready to give them economic benefits in 3 to 5 years.



Plates 1 and 2: Orchard at project inception and orchard in November 2003 respectively

Rampant theft from the fish farms due to the absence of security as consequence of poor assignment of responsibilities in the institutional structures has meant that benefits from this project have not been realised. Poor choice of the imposed bee-keeping site has also resulted in failure to harvest honey in time (see plates 3 and

4). Tembo (2003 *pers. comm.*) also attributed the failure of the bee-keeping and tree planting projects to the lack of commitment and technical know-how of the designated technical advisors to the projects. Consequently community members said they are losing interest in the projects since they are not seeing the benefits and therefore cannot be committed anymore. This failure to improve people's livelihoods with alternative and immediate sources of income was an oversight in the CEMP.



Plates: 3 and 4: Poorly sited bee-keeping projects and vulnerable fish farms

There has been no reduction in the rate of deforestation in the Luansobe area. In 1991 the Nsato Forest Reserve was 95% intact but in 2003, it is 25% intact (Tembo 2003 *pers. comm.*). This is mainly because people have continued with activities that contribute to deforestation since the CEMP has not provided alternative secure livelihoods to community members. According to Tembo (2003 *pers. comm.*), charcoal burning can be done in a sustainable manner, with the assistance of the Forestry Department, if it is controlled by allowing forests to regenerate over the years. This is possible if a rotation system is employed that

allows for people to harvest mature trees in a particular location over a number of years before moving to another one thus allowing for regeneration. Such a system would keep people satisfied with a continued source of income, while at the same time protecting the forest resources through controlled and sustainable use.

A similar approach of rotational subsistence farming can be used under the guidance of experts from the Department of Agriculture. This would greatly reduce the degradation of soils from poor farming methods employed today which force people to encroach into the Nsato Forest Reserve in search of good soils.

Local communities are mainly concerned with the socio-economic value of forest resources. They are willing to collaborate in management initiatives if the objective of the programme will maintain or enhance their livelihoods (Barrow & Murphree 2001). The benefits of joint management initiatives of forest resources must, therefore, outweigh costs to the communities in order to promote community participation (van der Jagt & Rozemeijer 2002).

The CEMP would have achieved its intended purpose of improving peoples' livelihoods and the conservation of forest resources in Luansobe if the projects were implemented on time and taken through to their full implementation. The reality is that people are discouraged and disappointed that the programme they started so vigorously has not come to fruition and are hence going back to their previous lifestyles. Most of the community members in Luansobe are unemployed

and depend on natural resources for their livelihoods. The main sources of income are charcoal production and subsistence farming, which are having negative impacts on the Nsato Forest Reserve.

One of the objectives of the CEMP was to implement micro-projects initiated by local communities as alternative sources of income to activities having negative impacts on forest resources. This would in effect lead to improvement of peoples' livelihoods and community development, as well as the conservation of forest resources. However, an on the spot inspection of the project sites by the researcher showed that this objective has not been fully achieved as the projects are incomplete.

Capacity building

During the inception of the CEMP, the government conducted capacity building workshops aimed at empowering leaders of community governing institutions with leadership, planning, project and financial management skills as well as procurement methods. However, community members pointed out that this training was only given to the leaders elected at the beginning of the programme. This has resulted in the same people holding different positions in the community institutions since 1998. This is perceived as an unfair and unfortunate situation as it has not accorded other members of the community an opportunity to develop the aforementioned skills. This has contributed to the CDCs, RDCs, FZR and ZDCs

failure to be established and function effectively in the communities. Community members therefore think that their leaders, together with district officials have hidden interests in the projects.

Nonetheless, the interviews and workshops revealed that the community as a whole is now able to identify environmental problems and come up with possible solutions through projects such as those currently embarked on. They are also now more knowledgeable on the consequences of deforestation, and the importance of the forests and forest resources as shown in table 3. They are able to understand that persistent use of poor farming methods, the continued encroachment into the forest reserve for cultivation, charcoal burning and over-harvesting of forest resources will adversely affect the forest reserve and deplete forest resources.

Table 3: Community members' perceptions of the values of forest resources

Value	Importance
Fertile soils	Forests prevent soil erosion and the areas have good soils for cultivation which lead to good yields that contribute to peoples' livelihoods
Construction material	Wood is used in constructing peoples' temporal houses
Source of food	Forest areas provide wild fruits, mushrooms, caterpillars and the like which can be consumed by the people and sold for sources of income
Source of energy	Wood is used as a source of household energy in the form of firewood and charcoal
Source of medicine	Leaves, roots and barks of medicinal trees and shrubs are used as a source medicine for community members and sale to urban areas
Catchment areas	Forests retain water and also protect rivers and streams from drying up and enable high rainfall
Habitat for animals	Forests provide a natural habitat for wild animals which are used as food by local people and can also be used for economic enhancement

Source: Mwango 2003 (*unpublished*)

In order for communities and institutions to be able to perform functions, identify and solve problems as well as set and achieve their own goals, they need to develop the ability to do so. This in turn leads to power sharing by government resulting in community empowerment and development of local institutions. It further leads to changes in attitudes and behaviours of community members towards the use and management of forest resources (Borrini-Feyerabend 1998; Hough 2003 (*unpublished*)). However, despite this awareness, the failure of the CEMP to tangibly improve people's livelihoods in the short term has not resulted in behavioural changes among community members. They have continued with activities that contribute to deforestation but help them to sustain their livelihoods.

Sustainability of the programme

The CEMP was designed to be implemented with donor support over a 15-year period in three phases. The Zambian Government therefore entered into an agreement with the World Bank on how the programme was to be implemented. Unfortunately, the government fell short in four areas of the agreement, one of which was the failure to provide the 25% counterpart funding. This resulted in the suspension of funding in February 2003. Due to the suspension of funding, most of the projects have not been completed (see plate 5). Nonetheless, officials at national level feel that the sustainability of the CEMP is ensured since government has taken over the role of funding the programme.



Plate 5: Incomplete well for orchard and tree planting projects

Although government has taken over the responsibility of funding the CEMP since the suspension of funding from the World Bank, the sustenance of the programme is highly questionable. This is mainly due to two reasons. Firstly, the government was not meeting its obligation of providing the 25% counterpart funding. It has only released money to the MTENR after the World Bank suspended its funding. Whether funding will continue and be regular remains to be seen once the disbursement of funds to the communities resumes. In addition, the money released to the MTENR amounts to K500million (approximately US\$100 000). Whether this amount is going to be adequate to meet the targets of all the projects under the CEMP at the stage at which funding was suspended also remains debateable.

Secondly, the interest and commitment by community members to proceed and fully participate in the programme has faltered. People's confidence in the leadership and success of the programme to improve their livelihoods has been

greatly reduced. Without the communities' interest and confidence, their commitment to continue with the programme will be very difficult to build again.

CONCLUSION

The overall objective of the CEMP was to strengthen institutional structures at district and community levels to enable local people to take control of the use and management of natural resources through participation in the identification, planning and implementation of community-based micro-projects. It was also intended to empower local communities through the provision of information, introduction of a workable legal framework and ingestion of financial resources aimed at addressing environmental concerns and improving peoples livelihoods.

Although institutional structures have been set up from national to community levels, these structures are not working effectively. Not all the governing institutions established are functioning while others have not yet been established. Visits by national and district officials to monitor the progress of the projects and implementation of the whole programme are very erratic. This situation has been attributed to a lack of funds for logistical support and individual allowances for officials visiting project areas (Mainza 2003 *pers. comm.*). The result is a break in the process of capacity building at community level and a limited flow of information as well as accessibility to information by stakeholders due to a lack of interaction among the stakeholders. This leads to the weakening of community

institutions. This is also compounded by inadequate representation of local communities on all governing institutions and ignorance of the CEMP structure. As a result, community members feel their opinions, views and decisions are not taken into account and as such, community participation and commitment in Luansobe has declined. Due to this deficiency in communication within the institutional structures, there is also a lack of accountability by leaders, mainly at district and national levels, to the communities.

The delay by government to effect changes in the legislation governing the utilisation of forest resources within the National Forest Reserves under controlled programmes such as CEMP, shows that there has been no deliberate shift in policies towards sustainable utilisation and management of forest resources based on community needs and priorities. An example is the inability by the local communities to set up the bee-keeping projects within the Nsato Forest Reserve under the guidance of the appointed technical advisors to the projects, including the Forestry Department. In effect, government has not yet created legally secure conditions that give community organisations the necessary authority to control the use of forest resources. The CEMP is intended to provide local communities with the opportunity to be actively involved in formal forest resource activities with economic incentives (Casson & Obidzinski 2002). In addition, people need to be provided with financial or material incentives between the inception of projects and the time benefits can be yielded. Failure to put in place systems that benefit people

economically results in the continued practise of activities that degrade the forests (Jokisch & Lair 2002).

Furthermore, the Zambian Government also needs to ensure the sustainability of the programme through the provision of adequate financial support that will enable communities to fully implement the projects. Once the projects are viable and people are able to receive financial or material benefits, community members will be able to sustain themselves through these projects thus ensuring the CEMP continues running without external support.

Small-scale community-based initiatives have been shown to be generally effective and efficient, since decision-making is easier and transparency and accountability are more likely to be achieved (Pye-Smith & Borrini-Feyerabend 1994; Ostron 1990, Murphree 1993 cited in Jones 2001;). Nonetheless, over large areas, further devolution of authority to sub-units within the areas can allow for more representation and accountability within communities. However, this is not practical in Luansobe since there has been insufficient capacity building to justify the formation of bodies such as the FZR and ZDCs. This is because the capacity building exercise has not been on-going to develop the abilities of more community members to assume roles in the new bodies. As such, the same limited number of community members hold different positions in the various community institutions. This in effect does not promote accountability and power sharing among the people but also contributes to the weakening of the institutions. More capacity

building workshops still need to be conducted to address the shortage of skilled people to manage community institutions and devolve power to more people and make these institutions more effective and representative.

In summary, good governance through strong and effective institutions that are representative of all stakeholders will ensure that all decisions made are in line with the communities' needs and interests. For as long as community members' roles end at identifying problems, their inability to be involved in the whole decision-making process through truly representative institutional structures will lead to their non-participation. Furthermore, capacity building that only enables community members to identify problems and solutions as well as make informed decisions is not sufficient. Community members should be given financial support that translates to community development through improved livelihoods, which also promotes community involvement. Therefore, in order for the CEMP to be implemented effectively as a participatory development approach meeting its objectives in Luansobe, it needs to promote income generation and improve people's livelihoods through better forest resource management by accountable and representative decision-making institutions at all levels. Nonetheless, it should be noted that Luansobe is one of many communities in Zambia where the CEMP is being implemented, therefore, the contents of this report may not necessarily represent an overall picture of the performance of the CEMP in the country.

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APPENDIX 1

Sustainable Development

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Aims and Scope

This journal is a wide interdisciplinary publication which seeks to further debate and discuss the important concept of sustainable development. The scope of the journal therefore allows for contributions which have a local, national or global focus from a philosophical to a practical perspective. All contributions are refereed with the aim of providing the readership with high quality, original material.

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Sustainable Development

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APPENDIX 2

QUESTIONS: KEY CEMP OFFICIALS

1. What are the institutional structures implementing CEMP?
2. Community institutional structures:
 - How are committee members selected?
 - How are decisions on who, how and when forest resources are used made, agreed upon and enforced?
 - How are conflicts among stakeholders resolved i.e what conflict resolution mechanisms are in place?
 - What is the level of involvement of community members in the decision-making process?
3. How do community members participate in the decision-making process?
4. Are comments, views/opinions and needs of community members taken into account and enforced in the decision-making and implementation processes?
5. What mechanisms are in place to ensure leaders report back to community members on implementation progress (ensuring decisions made are those agreed to by all community members)?
6. What management responsibilities do community members have? Are these responsibilities clearly defined and agreed to by all community members?
7. Are community members familiar with/aware of the rules and regulations?
8. What measures have been put in place to ensure that all community members have access to information on the implementation of the programme i.e progress, draw-backs, difficulties, etc?
9. Are all community members part of the conflict resolution mechanism? If so, how?
10. What measures have been put in place for those who do not comply with rules and regulations?
11. To what extent does the government get involved in the decision-making and implementation processes?
12. Is there now an understanding and awareness among the communities on the environment, deforestation and its impacts on the environment and the communities themselves?
13. Have community members been well equipped to make informed decisions on the use and management of forest resources?

QUESTIONS: COMMUNITY WORKSHOPS

Institutional Mapping

1. Identify institutions that influence CEMP implementation
2. a) What rules and regulations govern the use and management of forest resources among community members?
b) How were the rules and regulations determined i.e were all community members involved in the development process?
c) Are community members familiar with/aware of these rules and regulations?
c) Extent of knowledge of rules and regulations governing CEMP initiative on utilization of forest resources.
d) To what extent have these rules and regulations been agreed to/accepted by community members?
e) Determine support for having rules on use of forest resources and who should make rules i.e government and community jointly or solely community.
3. a) Identify instances of conflicting needs of stakeholders and how these are resolved
b) How are the benefits from forest resources distributed among community members (physical benefits)?
4. a) Are there clearly defined boundaries within which the community can enforce their rules and regulations as well as derive benefits from the forest resources?
b) How were these boundaries arrived at and who determined them?

Problem Ranking

1. a) What are perceived to be the most serious problems in the community?
b) Establish community needs and status quo prior to CEMP intervention.
2. What are the causes of the forest resources depletion?

Social Mapping

1. a i) Economic activities in the community: sources of income
a ii) Main source of energy for households
a iii) Identify groups within the community in terms of economic activities e.g charcoal burners
b) Effects of community activities on forest resources
c) Has there been a cessation in encroachment activities into the forest reserve?

Preference Ranking

1. a) What activities have been implemented to reduce deforestation?
2. a) Have attitudes of people towards the value of forest resources, both directly and indirectly, changed i.e why do they value the resources
b) Have community members been well equipped to make informed decisions on the use and management of forest resources?

3. a) What are the most important benefits of the CEMP initiative on the utilization of forest resources to community members?
- b) What other benefits of CEMP are perceived by community members e.g improved governance skills and community organizations, etc?
- c) Is there any community development that has improved the livelihoods of people while at the same time has preserved forest resources?

Historical Mapping

1. a) How long did people take to collect firewood 5 – 10 years ago?
- b) How long do people take to collect firewood now?
- e) Has there been a change in people's attitudes and behaviour towards the importance of forest resources to themselves and the environment?

APPENDIX 3

Interview

Interviewee: Michello Mainza, Chairman – District Environmental Committee ('MM')

Interviewer: Nelly Mwangi ('NM')

Date: Wednesday 12 November 2003

Venue: Mufulira Municipal Council Building, Mufulira

NM How long have you been chairman of the DEC?

MM I have been chairman for 2 years of the DEC.

NM Is this chairmanship rotated within the Council?

MM Yes within the council because ESP has always wanted the programme to be continued by the council. The council is the only institution that has been identified as being capable of being able to continue with the activities of the ESP. that is why it is even seated in the council. The programme is operating from the council premises and most of the facilities they are using are council facilities

NM What are the institutional structures in place governing the implementation of the ESP/CEMP at district level?

MM We'll begin with the council. The council is the overall supervisor, the policy making body of the district. They decide policy and council management implements policy. Then below the council, we have other sub-committees. We have the DDCC, where all other committees now report because this committee sort of controls development in the district. Below that we have other sub-committees of the DDCC and the DEC is one of them. So we have DEC then we have the Planning sub-committee of the DEC, then we have the Social Services committee, we have the Finance committee and the Restructuring committee of the DEC. so all these report to the DEC and then the DEC reports to the council. Of course the council has also its own committees but we begin at a broader level. Below these committees, the DEC and its sub-committees, we have the ADCs, and then we have the RDCs and the CDC, the Constituency Development Committee, that is the political parties now. So that is basically the institutional arrangement at district level. On the council side, we have the council itself, then we have other committees and sub-committees such as the finance committee, social services committee, planning and development committee where now the plans from DDCC go to the planning and development committee then through to council. So DDCC then the planning committee then council in that way. So that's the arrangement as it is. The planning and development committee of the

council gets plans from DDCC, which are all the way from the CDC, RDC, they come that way, start from the constituency, then to RDC, ADC into DDCC. Then from DDCC to the plans and development committee of the council. And then from there, council makes a decision and the project is in place. So that's the institutional arrangement.

NM Now looking at the structure, where do the actual projects or programmes on what the community needs and how are they should be implemented come from? Is it from the communities themselves?

MM Actually projects originate from the communities. The communities themselves, through the facilitation of the DEC and the DPO working together. We facilitate the projects in the area. The communities identify the projects themselves and through the RDCs and the ADCs. We do the facilitation there. The communities are talked to and when the needs are identified and then prioritised they go to the DDCC and then from DDCC to the planning and development committee and then from the planning committee to the council. So the projects and problems are identified by the people through the facilitation of DEC and DPO, which is the district planning unit.

NM Are these committees, the ADCs and RDCs, fully run by the communities themselves?

MM The difference between an ADC and RDC is that an ADC applies to a bigger area, for instance a peri-urban area, combines quite a good number of settlements like 14 and 17 miles that form one ADC. But RDCs are talking about a specific settlement for instance Murundu and Kawama East. They have one RDC there. So these are formed by the people themselves and they have a defined terms of reference and a defined period of tenure. They are actually formed by the residents themselves, they are community-based in other words. They form the best entry point for any project.

NM What is the term of office for the committee members?

MM They are also defined in the constitution.

NM Is the constitution in place?

MM Yes, we have a model constitution that is adopted as the situation is suitable. We have a uniform constitution which the ADCs and RDCs adopt as it suits them, they just change a few things. Their terms of reference and tenure of office are well defined by the constitution.

- NM** Are the roles and responsibilities of committee members and community members also well defined and do they understand them clearly?
- MM** Yes, the roles and responsibilities of everybody are clearly defined in the constitution and well understood.
- NM** From the outlook of the institutional structure, how do the community members participate in the decision-making process?
- MM** They do participate through their... you know they have what is called the general assembly. If there is a big problem, usually we encourage the RDCs and ADCs to call some kind of consultative meeting with their members. We encourage them to meet their members once in a while. One example is we already have a problem with the Murundu water project. They had put a very beautiful project there but it's not being used, it has been abandoned. This project was put up to encourage people not to use unclean well water but the piped water from the kiosks provided through the project. All this was well and good. The problem is people abandoned these kiosks and ZESCO disconnected electricity supply to these kiosks. So the RDCs came to us asking what they were going to do. So we told them to go and consult the people. That's how we referred them back to the people. So they are in the process of consulting the people on how to go about solving the problem. So we encourage them to participate and dialogue constantly.
- NM** Could you say that for this particular project in Murundu, the problem was that the community members were not participating fully?
- MM** Yes (*long stretched yes*). I think that project from the beginning was set up by just a few influential members, people who bulldozed the whole process. A few leaders were just interested in the situation that was obtaining in town so they wanted the same system in their area without taking into consideration the costs and all the other overheads and so on. So a few members bulldozed the establishment of the project in that area.
- NM** What mechanisms are in place to ensure that these leaders in the committees report back to the community members on the progress of the projects?
- MM** What is happening is we work together. We have a unit called Settlement Improvement Unit, under which we have a technical improvement unit that is a section of the council working in these communities. So as a way of checking them, we insist that each time they have meetings they record and keep records of their minutes. So we are saying that the technical improvement unit works together with the community and report to council what has been done in that community. So we have checks and balances

in place. And where the RDC fails, they are removed by a petition from the general assembly of the community and then the council now appoints some kind of an overseer to look after the project, because we don't want the project to fail, until elections are held and its usually within a period of 90 days and their being appointed is always reported to council.

NM What measures are in place to ensure that community members have access to information about the projects and programme implementation?

MM Actually, I cannot lie, that has been a problem. It looks like the members out there have very little access to information. Because even when we induct the RDC, from we've found, they don't go back to their communities to inform them of what is happening, with the information they are supposed to give to their members. I think that is due to lack of capacity. These RDCs don't have the capacity to articulate, to understand issues. They lack capacity in terms of information dissemination. And not only capacity, they also lack the facilities to disseminate the information such as paper and so on. That is why information on the part of residents has been very lacking and closer to that is the level of illiteracy in these communities is still very high. You can put up a poster and they don't know how to read so they don't read about this, so right now we are trying to concentrate on adult literacy with the hope of raising literacy levels. Most of these people they don't know how to read, even children don't go to school. So, access to information is actually very limited which is why some projects are finding it very difficult to take off or even succeed because of that problem.

NM When you say that the people are lacking in terms of capacity to disseminate information, wasn't the capacity of these people improved on during the environmental awareness campaign that was conducted prior to the implementation of the CEMP?

MM To the very best of my knowledge, what was actually done was the financial management, they just concentrated on financial management after the project was launched. Of course there were things like meetings, general meetings and they can't call those meetings capacity building, eh, facilitating meetings. Those meetings they were conducting at that time when the CEMP came were just facilitation say to identify the problems here and there, what were the key issues, what were the key environmental issues in those areas. So we were trying to identify those problems and what mitigating factors can be used to sort of control those problems. That is how they came up with projects such as bee keeping, digging wells, pit latrines and all those. After this facilitation was done, the committee that was formed was just mobilised and given financial management, that was all and not capacity building. We just concentrated on financial management.

- NM** Do you feel that the communities have benefited from the CEMP in terms of building on leadership skills, management skills?
- MM** The ADCs, but I wouldn't say much, maybe financial skills, because we were only concentrating on operations and maintenance. Not leadership and whatever, those aspects were not covered, they were not part of the project. We were concentrating on procurement, accounting, how to manage accounts, what is involved and not leadership. And the workshop never even lasted more than two, three or four days. So I think the leaders were not capacitated enough to go out and share whatever information they were given.
- NM** In this light, how then do the leaders and the community members agree on how to share the benefits of the projects from the use of natural resources?
- MM** Unfortunately madam, most of these projects are not yet complete. I know of one, which is bee keeping at 14 miles that is almost complete; well-sinking at 14 miles is almost done, I think they are drawing water from there so they are benefiting. Okay in terms of levels of benefits, the communities themselves identified the problems and one of the key issues was lack of water during the dry season due to dry wells, so those were identified and funded. Though we haven't actually gone back to do an evaluation of how the people are benefiting, that evaluation has not been done. But on the ground I think you can see that people are benefiting in terms of wells. We don't know yet how they are benefiting, we haven't gauged yet how they are benefiting from the bee keeping and the like. But the plan was that that committee should raise the money and put in some kind of community fund where people should access it. Again such projects such as bee keeping when they sell honey, the money should be put in the project account and then they themselves should identify other projects on which this money should be used.
- NM** Are there specific figures in terms of percentages of how much people can get from these accounts and how often they are allowed to access this money?
- MM** Uuhh...at the moment we haven't developed those terms yet. You know the problem is that this project has been on and off, suspended. So the people out there, for instance the one in Luansobe that is goat kraal and pigsty and the other projects, funding stopped going out. So I think there is still a bit of a problem in terms of funding. We still actually don't clearly know how these projects will run until after these problems are over. There is still a bit of confusion, we can't right away determine how people will benefit because most of them are incomplete. Out of eight, about two or three are complete.

- NM** Where does this problem of erratic funding stem?
- MM** I think it is from the government, they are not yet decided what to do. So this has put us in a lot of problems from the people out there. In the mean time we're still waiting for guidelines, we can't monitor those projects at the moment. There's no funding to draw fuel, our CEMP vehicle is marooned in the workshop so there's no monitoring of those projects, which makes it difficult to look at how people are benefiting from the projects. So in the mean time we have to wait for guidelines.
- NM** So is the ministry of tourism, environment and natural now in charge of the CEMP?
- MM** Yes, it's the one now controlling the whole thing and remember, they said the last day for ESP was 31st October and we now waiting for guidelines from them. And even the funding, they said we will now fund through councils so that these projects that were started can continue because some were not even ready, but this was not done.
- NM** With this kind of arrangement, does this mean that in terms of the financial aspect of the programme, this is still controlled by the ministry?
- MM** Yes, by the ministry. The funding used to come straight from ESP Lusaka, which is why even the province is finding difficulty in intervening. We had a DDCC meeting yesterday and they said how can we come in when everything is decided and coming direct from Lusaka? So they have found very difficult and we agree with them. Now the ministry is in charge of all the projects, there are eight districts, so they are saying from the ministry of environment we will get the control, they will give us how to proceed with whatever using the funding of some of current projects. So we're still waiting.
- NM** Does this make it very difficult for you to work with the communities?
- MM** Exactly, yes. You know what makes it very difficult is that one there are a lot of logistics in place. One we have to pay the officers their allowances, we have to buy fuel for the CEMP vehicle. Council has no money, they have completely no money whatsoever. So this project was entirely dependent on the World Bank through the ministry of environment. All meetings of the DEC was funded by the World Bank, all meetings of the communities were funded by the World Bank through the ESP. now all this gone. We can't find petrol to go and do the evaluations, we can't find money to buy paper to write on evaluations of the projects. There's nothing, there's no money. So we last visited the projects some time in August last year. You can imagine all that time, it's been over a year. In the mean time, ESP has written to us, we suspend all the projects. They

came some time in February telling us to hold on, we'll come back to you later. So from that time it's been very, very difficult to see what projects are taking place and so on, it's been very difficult.

NM I was in Luansobe and visited three projects, one of which is the orchard. The trees are drying up because the wells that have been dug for the purpose of watering the trees are not operational, so do the people in Lusaka know about such things?

MM They don't know, they can't know and we're not able to visit them and we're not able to monitor them. Here we ask for money at the council, there's no vault for that. The CEMP vehicle is even in the garage now. We can't find money to give our facilitators to do monitoring and report to Lusaka, we can't because that programme was well funded by the world bank which is why the funders were annoyed so they have said be on own. The programme was being run straight from Lusaka, there was no coordinating with the provinces and the head office.

NM What is the level of government involvement in the decision-making and implementation processes?

MM I think even from this it can show you that there is too much control from the central government as opposed to the district. These projects are supposed to be controlled by the DDCC not Lusaka. This is why we're having problems because if the DDCC was aware of this problem obtaining, they would have sourced money from ZAMSIF to extend to these projects like we do for others. ZAMSIF has a proper kind of arrangement where project monitoring and all these things can be easily facilitated. All ZAMSIF projects are properly facilitated, transport provided, whatever you need. Now DEC has too much control from central government, which is even now the same arrangement. Because even though we are the sub-committee of the DDCC, that funding is still not very clear how we will fund those projects. So unless and until the government devolves power and hands over these projects to the DDCC and district proper, then I think we'll see something. As at now, we chatted to the DDCC yesterday and we resolved that we should write to the ministry that DEC is not happy with what has been happening between the DEC and Lusaka, that Lusaka has full control. That was the resolution of the district, just to bring out the concern of DDCC over the operations of DEC, where the supervision was done straight from Lusaka, so we resolved to do that. So, government control is a bit too much which is why some projects are failing.

NM How are conflicts, within the communities, over these projects resolved?

- MM** Conflicts, eh, we have structures. Any conflict regarding the projects is usually resolved by one, the council. The council is the kind of final authority to have but they start from the community themselves. Like the Murundu one I was talking about, that's already a problem. There is a conflict with the RDC and the community, but they have to start with the community. Where they fail to resolve, they come to, in this aspect, the DDCC has to know. If the problem is still unresolved at DDCC level, then we take it to the council for the final resolution of the conflict. So that's the process under which conflicts are resolved. It begins with community consultation up to council level, through the RDC and DDCC.
- NM** My study is mainly concerned with the problem of deforestation, particularly in the Luansobe area. I've noticed that the projects that are being implemented to overcome this problem are bee keeping, fish farming, an orchard and tree planting. But then, what I noticed is that these projects have not really improved the livelihoods of the people to deter them from activities such as charcoal burning. So how do you as the council running this ESP intend to resolve this problem?
- MM** You know, that problem is multi-faceted. One, we are looking at the social-economic status of the people involved in that practice. Those are very poor people. And if you look at the number of people involved in the bee keeping project, they are just very few members of the community, very few and the charcoal burners out-number these people. So the bee-keeping project itself is intended to have the impact of preventing deforestation by dissuading people from cutting trees for charcoal burning through generating other sources of income. Now if you look at the bee-keeping project, there are only very few people who actually involved. And the reaping takes time, in the mean time, this fellow needs money for their children, for their daily necessities. So the option instead of waiting for the honey to be ready they cut down trees. So that is a very, very complex situation. The only way we can resolve this is to identify other sources of income. We can introduce programmes where we have tree nurseries and when people cut down a tree, they plant another one. So instead of dissuading them completely from what they are doing, we encourage them where they cut down a tree, they plant another one. We just have to flat out doing this to ensure that we control deforestation.
- NM** So at the moment you can't say there is any project that is helping these people overcome deforestation?
- MM** No, at the moment we don't have any project that is helping apart from those that were identified and are incomplete.
- NM** How is the Forestry Department involved with the council in terms of controlling the depletion of forest resources?

MM Actually, we are supposed to work together through the environmental programme in monitoring the cutting down of trees and cultivation, since you know that there are some people cultivating in the forest reserve. We are supposed to, the real situation is that the council and the forestry department are supposed to work together. But the circumstances do not allow that to happen. Even under the local government act, under the schedule of functions, the council is supposed to protect the forest resources and this is in conjunction with the relevant government department. But that is not happening, why, simple reason is logistics. We are talking about our vehicle there, it is marooned. We are supposed to control charcoal burning, by the way we introduced a charcoal levy of about K100, 000 per 25kg bag of charcoal, we can't control that because if we had put that in place, charcoal burning would be decreased tremendously. We can't enforce that because we have no means of enforcing it and so doesn't the forestry department. Actually, we are supposed to work together, patrol the areas, assist them in terms of transport and even manpower to go around and police the forests. But we are not able to because we are greatly incapacitated in terms of resources. We are actually supposed to work together. The local government act itself provides that we do that. It is part of our functions that we protect the forest resources and other natural resources. You know, that is why we are saying that this decentralisation policy should come in place. We are just praying that it should be better implemented because all these issues of environment, like it is in Uganda, in Uganda you can't find people just cutting down trees anyhow, you can't. Everything is controlled by the council. That is the situation we want to see in Zambia, through decentralisation. We don't appear to have the political will to do that.

NM Do you feel the levies are adequate to deter people from going to the forests and cutting down trees?

MM First and fore most, we don't want anyone cutting down trees that is why we have imposed K100, 000 levy. Whoever is found to have cut down a tree, be it in the town or in the bush without the authority of the council, they have to pay a fee of K100 000. Of course the policing as I have said has been difficult because of resources. We only able to catch a few of these people but there is a by-law that requires anyone found cutting down a tree whether in a residential area or in the bush without council authority to pay a fee of K100 000.

NM Do you think that despite the fact that these people, due to high poverty levels, continue with activities that are harmful to the environment, they are environmentally aware of the negative impacts of their activities?

- MM** They do realise that actually what they are doing is harmful to the environment. We talked to these people when we were doing the PRA methods at the beginning of the programme and they are aware that because of the negative effects the ecosystem is disturbed. They know that before this they had a lot of rain but now that the trees are disturbed it is less; they know that trees act as wind-breakers; they know trees are a source of *masukus* (traditional fruits). But as we said, the levels of unemployment are just too high. Even the former mine employees are also cutting down trees for charcoal burning because of the high levels of unemployment. This is actually what is causing deforestation. People know the negative impacts, it's just a question of survival, ... how do people survive?
- NM** So I suppose the main issue is government's ability to devolve power to control these programmes to district level, then districts will work with communities directly?
- MM** Yes and it looks like the will on the part of government to do that is not there, it's not there. They are just talking about it, but it's not there. This is the major solution to all these problems, once the government fully devolves power and decentralises most of it's functions to the local council, all these problems wouldn't be there. How come we don't have problems in Uganda or Botswana? It's because their local government system is very strong. Here, I think the last regime did more harm than good.
- NM** So as council, you said you made a resolution that government should give you control over the running of the ESP/CEMP?
- MM** Yes, we resolved that all the functions and coordination of the DEC should be controlled by the DDCC and this resolution will be passed onto Lusaka.
- NM** Well thank you Mr....
- MM** No, thank you madam, though I didn't get your name...
- NM** Mrs Mwango.

Interview

Interviewee: Kasanda Mwape, District Administrative Officer-Mufulira Municipal Council. ('KM')

Interviewer: Nelly Mwango ('NM')

Date: Wednesday 12 November 2003

Venue: Mufulira District Administrator's Office.

NM How is the District Administrator's office involved in the implementation ESP/CEMP?

KM The District Administrator's office is the chairperson of the DDCC. This is the body that is responsible for developmental projects in the district. So the composition of the committee is all government departments, that is line ministries including the council, NGOs and business community through the Chamber of Commerce and small and medium business associations. So that is the composition, it is an all-embracing body. Now the chairperson is the DA, the secretariat is the council. We have the district planning officer who heads the secretariat. Now this body has various sub-committees but it has one important sub-committee and this is the planning sub-committee. The responsibility of the planning sub-committee is to do developmental facilitation. They go into the community to do facilitation. Now in the sub-committee we have the sub-committee chairperson who mobilises the other sub-committee members and of course the secretary is the District Planning Officer (DPO). We have trained facilitators in the communities of participatory approaches. What happens is when this sub-committee moves into a community, they will discuss with the community to enable community members identify their needs. Once they identify their needs, they will prioritise the needs identified in the order of importance. Then as they do that they will discuss what solutions they will provide to the identified needs, what is it that they will do as a community, how far is their capacity and where they are lacking, the sub-committee advises what other sources of funding are available which the community can source. Once the community has been advised in that manner, from the prioritised needs they will pick that which they would want assistance in. once that is done, then they are given application forms. Before the application form is filled in, the community is supposed to come up with what we call the Project Committee. The composition of the Project Committee is supposed to be 10, 5 men and 5 women or 6 women and 4 men. That is the recommended composition. For the sake of gender, we would want to balance, we wouldn't want to see one gender to be dominating. Although if you go to the extreme we would want to see the women folk have an upper hand in the composition of the committee, we would want to have 4 men rather than 6 men and 4 women but we would rather have 4 men and 6 women if they are not 50 –

50 other wise the composition is 50 – 50. So once that is done they satisfy that category, then we allow them to fill in the application form. They fill in the form with the guidance of our technical committee expert members of the sub-committee, we have technical supervisors who have technical qualifications in various fields such as building, construction, electrical. So these advise in any area that needs technical advise. Even technical appraisals are done by our team, the sub-committee members do the technical appraisal for the community so that they help them to supply technical information that the community cannot supply. Once that is done, we bring that application to the desk appraisal still under DDCC. The sub-committee will sit and desk-appraise the application. Once we are satisfied with the desk appraisal, we are satisfied with the information provided in the application form, we follow up with what is called the field appraisal. Once the project has been field-appraised then it will be presented to the DDCC for adoption. And once it has been adopted by the DDCC then the document, the adopted project will be sent to the council meeting for ratification so that councillors have a say over the developmental projects that are taking place in their areas. So once it has been ratified by the full council meeting, then we send the project for funding. When the projects were under ESP, we sent them to ESP for funding, but now we send them to ZAMSIF or to Micro-projects, when they were still accepting applications, but at the moment they've suspended, it's like the funding allocated has run out. So that is the responsibility of the DDCC.

NM So your major rôle is to help the communities take their projects to funding organisations?

KM Yes and building capacity in the community.

NM Looking at the ESP projects currently being implemented, what kind of capacity building do you think has been achieved?

KM Well, I'd say, though your study is restricted to Luansobe, the ESP is being implemented in a number of areas such as 14 miles. We introduced the communities to the process of identifying their needs. The communities are able to identify the environmental problems in the area such as tree cutting and deforestation. They said that the only way of arresting this problem is by engaging in a meaningful income generating activity so that they do not continue cutting down the trees. And when they identified that problem then we asked them what they know they can do in the community that can arrest the problem. They came up with bee keeping so that the bees can benefit from the trees that are growing and the community can benefit from the honey that the bees are going to produce. They also came up with fish ponds and planting of citrus fruit trees. There was the problem of jiggers in Luansobe so they came up with

a community pig sty so that those who have pigs can bring them together once this pigsty is completed. And then they can also have a slaughter house where those who want to slaughter their pigs can have them slaughtered so that the disease of jiggers can be controlled because these animals will be confined in one place as opposed to let them roam around, freelance. So that is one area. Once they identified that, an area for the pig sty was identified, an area for bee keeping was identified and an area for planting citrus trees was identified as well as the area for fish ponds. Now, as the applications were done and sent, these projects were approved. Now these were different targets: the pig sty, bee keeping, fish ponds and of course planting of citrus trees. So monies were released to these projects and was distributed. For the bee project, the swarm boxes were prepared and the bee hives constructed and they were installed in the allocated place, the members of the community came together. We expected of course bees to come in. the first few boxes were occupied. Unfortunately red ants passed through the area and went into the boxes, so the bees disappeared for some time. The boxes remained empty for some time but the bees have started coming back. They haven't made any first harvest yet however the bees have started coming back into the boxes. Then the citrus plants were bought and planted but it was done during the dry season, that was last year and there was component of supplying water. A well was dug, what was remaining was to put in the rings and put a hand pump so that they can start watering the plants. It was at that point that money stopped coming. Then the next part was the fish ponds. The first pond was dug, completed and fingerings were bought and stocked into the pond. The next one was not completed because funding stopped but the first pond has even fish though they haven't started harvesting because they are still very small. Then the pig sty, the community dug the foundation, they had started doing the moulding of bricks but they could not go ahead, I think it was just the first allocation when that money run out, because most of it went to the person who was contracted to do the rings, when that money run out we received communication that there was a problem in Lusaka which hasn't been fully explained to us as to what the problem was concerning the funding that the donors had blocked the funds. So up to now the money hasn't been released to have the projects completed. Right now the projects are at a stand still. But the one in 14 miles on bee keeping, they did and completed. Even in Luansobe the bee keeping was completed, they were just waiting for the bees to occupy the boxes. And 14 miles maybe the area was very lucky but all the boxes were occupied and this month, November, they should be harvesting their first honey. The project is very successful. But the problem was with the pig sty project, the fish ponds, and the orchard which needed water and I think very few plants survived because they were planted during the dry season and there was that need for water.

- NM** Having seen the projects and the aspect you raised about funding, when exactly were these projects initiated?
- KM** This is 2003, ... 2001. Towards the end of 2001. but funding came in 2002. the projects were initiated in 2001 but funding started in 2002.
- NM** So from last year, 2002, that is when funding was started?
- KM** Yes, that was the first allocation.
- NM** Is that all the money that was paid out?
- KM** Yes and as await the next allocation when they start the communication.
- NM** One can see that there seems to be a problem with ...
- KM** The Lusaka head-office, yes. Well, initially we were told that they have transferred the ESP projects to ZAMSIF. Now ZAMSIF wanted not just a transfer but also a transfer of funds earmarked for ESP. then they were going to be more than ready to take over the projects. But I think that was not fully done. We were told that we would get communication once that is successfully done. It's a case that at one time BESSIP projects were given to ZAMSIF to administer. So they wanted to do the same thing for ESP projects but ZAMSIF wanted the money component and only for the projects so far funded so that they know what they are taking over. And it is at this point that we are at a stand still.
- NM** So is the Lusaka office, the ministry reluctant to transfer the financial ...
- KM** That we are not very sure of. The ministry of Environment should be able to give you more information as to what has happened to the money we asked for the projects that are on a stand still because we are not very sure what happened.
- NM** So as far as you are concerned, you have nothing to do with this money coming directly from the World Bank. You used to get it from Lusaka?
- KM** Yes, from Lusaka then it comes down to the district into the community account. Normally what happens is that once we've done the capacity building in the communities, the communities open accounts. Then the community chooses signatories. Our role as the district is to monitor and give professional advise to the community and building capacity. So all community-based projects are handled and implemented by the communities. The district just monitors the implementation but we have the powers to suspend and freeze accounts where we find that you're not following the laid down procedure. That power we have to write to the

bank and withdraw the cheque and we can only give back when we are satisfied that they have learnt and they are able to implement according to the guidelines.

NM So all the decision-making and implementing ...

KM It's the community. That is why we have to start by building capacity.

NM Is there a structure in place at community level through which conflicts are resolved within the community pertaining to the various projects?

KM We have the RDCs and ADCs. Those are the community institutions that have been created to assist communities and when the RDCs fail, they come to the district.

NM What I've gathered is that very few conflicts are resolved within the communities themselves. A lot of them are brought to the council.

KM To the DDCC, yes. Many times you find that sometimes it's failure to trust each other in the communities where they are. It's possible that conflicts can be resolved where they are but sometimes you'll find that they don't seem to trust each other, they trust those people that are outside that they think they will be more neutral than those that they live with.

NM What measures are in place to ensure that all community members, not just those in leadership positions, are availed information as to how the project is being implemented, what is going on like at this stage where funding has ceased, are the members aware?

KM Yes, what happens is when we have any problem we call for what is called a committee meeting. We send a notice to the project committee, those ten. The notice goes to the chairperson or the secretary of the committee who will call a community meeting. So members of the community will convene at a place of their choice and then we go to that meeting to explain what has happened. Attendance is taken and minutes are taken of that particular meeting just as it is during the identification stage. You know the project cycle has identification, application, desk appraisal, field appraisal then project launch, implementation and evaluation. Now when those stages are being explained to the community we call a community meeting, when there is a problem we do the same, we call a meeting and explain to the community what they need to understand or what problem they are facing. Or even when they identify that their committee is not implementing the project as expected, because they are supposed to participate as a community. We tell them their roles, what it is they are supposed to do to successfully implement the project. When they elect that committee, it does not mean that the whole work is

going to be done by the committee, those are just members to coordinate other members of the community. So there is the responsibility of each and every member of the catchment area. So we explain all that and it is done when we call a community meeting.

NM How often do you have these community meetings?

KM Well, the community meetings are issue-based. When projects are progressing very well, we rarely call community meetings because we are satisfied that they have understood and are implementing the project as required. Not often, we will call for meetings when we go for monitoring and this monitoring, when a project is running we monitor at least once a month. So there will be a community meeting every month on a project.

NM Has the participation from the community members been high?

KM Well, I would say that there are certain projects that we have implemented where we have very good participation from the community and they have successfully completed those projects. But there are certain times when you have problems and when problems come in, if the community are suspicious of their committee, more especially when things start going wrong, then members of the community start suspecting foul play by the committee. And it is during that time that they feel they are being used by the committee, there is something that the committee is getting out which they are not getting and which they are supposed to benefit as a community and a few individuals are doing that and so then they get discouraged. But when all is going on well, you find that there is good participation. The other time when we have very little participation is when there is political interference in a project. For example, you know we're in a multi-party set up, each political party would want to score a point. But there are times some people would want to politicise projects. Then from our developmental approach, when we go to a community we do not introduce from their political affiliation, we introduce people as community workers. We go into the communities as community workers to serve communities. Of course we note the presence of councillors when we go into their areas as leaders of that area. We explain to the councillors that this is a community project, it cuts across political affiliation. But you find even with that explanation some people still feel they have that muscle to push around other members of the community. And those that feel they have been left out would want to confuse the community, sending negative information to the community which discourages many to fully participate because they feel those are political leaders and they have not been put in the committee when our guidelines say we are not supposed to have political leaders in the committee. So when we leave them out they feel why have we been left out and start sending wrong signals to the members. But nonetheless, there are some who are happy to see that a

project has come into their area and will mobilise the people and work flat out until we succeed in the project.

NM How do you manage to implement projects in areas where political leaders side-lined?

KM Basically we explain to the political leaders to say look this a community project and not a political project. Where projects have been initiated by politicians many of them have failed to be completed because of the conflicting interests. Now these are community projects that is why we do not bring politics in development, we don't bring politicians to development. Projects that come to the community are for the community, you (political leaders) your role if anything, you are supposed to facilitate development. So once we educate them, they understand. They start keeping their distance from where the project works are going instead of confusing people.

NM Since the projects have been running since 2001, what measures are place that provide for the RDCs and ADCs to report back to the community members on the progress of the implementation of the projects?

KM This is done through monitoring. When you go out for monitoring you send monitoring reports, you appraise ESP activities through monitoring reports and how the projects are progressing. You send those reports and it's based on those reports that they also write back. We give them both the positive and negative parts of the project processes, so it's from there that they also write back. They write directly to the community and to us, so they write to the project chairperson.

NM Now you say they write to the community ...

KM Yes and they just don't end at writing, there also times when they come, they come once in a while. Like the ESP projects they used to come once in a while to come and see what is happening on the ground. But for projects that are under organisations like ZAMSIF, which have been decentralised, they have got a person that is at the province, he takes time at least once in a while to visit the project sites and see what is happening.

NM But that is not the case with the ESP?

KM ESP, that is not the case because ESP have only got the district to go onto the site, monitor and give report.

NM Straight back to Lusaka?

- KM** Yes, straight back to Lusaka.
- NM** It is known that most of the people in these communities are not literate, so do you still only give them information through the aforementioned reports?
- KM** No, when we want to share information with them it's more of personal interaction, we call meetings. If there is anything we want to explain to the community we write through the community leaders, the RDCs or ADCs, to call for community meetings. Then they are called and then we go and explain. When we get there we talk the language that they understand.
- NM** IN terms of government involvement, what is the extent of the Ministry's involvement in the decision-making and implementation of the ESP/CEMP?
- KM** well I think not too much. I think most of the controlling power in terms of authority are still based at the Ministry out there because here we are talking about suspension of the programme where we have no control whatsoever we just don't know anything, these projects are on a standstill for now until further notice. The impacts that have been created in the communities they (in Lusaka) don't feel it, it's us here who feel it and yet we have no control over that. Whatever has gone wrong we don't know exactly. The only thing we saw is they sent some officers from Lusaka to go round the ESP projects.
- NM** So are you saying there is too much control from central government?
- KM** Of course and I think the control is necessarily because of funds. These are still controlled from there. While that is done, once the community gets the money we have the authority to suspend a project but there are certain decisions that are taken before they consult the people on the ground, what would be the impact of suspending the programme to the community who have had so much hope raised as is the case now.
- NM** So the decision to suspend the programme was made without consultation?
- KM** Yes, we were just written to that this is what has happened. So before such decisions are made the communities on the ground should be consulted so that even when the decision is being taken they understand why such action is being taken because for them they are waiting for the next allocation but all they get is project suspension.
- NM** Has that affected the trust and confidence of the community?

KM Yes it has done so in a number of ways in the sense that if you're going to introduce another program with the current ones not yet completed what kind of confidence do you expect the people to have? Next to zero and that's our worry as a district that such programmes when they are introduced they must ensure that proper measures should be put in place such that if there is something that goes wrong, before a decision is made first an explanation has to be given to the community before the decision is taken, what has happened, why the decision has been made. Not first suspend and you know there is that long delay before the decision is made and meanwhile the community is expectant. Before they can get what they are expecting, all they are told your project is suspended for whatever reasons. But before those decisions are made, let the community know about it earlier so that the district also knows and they explain it better to the community if that information comes. Even if they send a person from Lusaka who is accompanied by a person from the district so that when an explanation is given the community will know they are getting information from the horse's mouth and this will build confidence in the community. That way they will even trust the district when we go to facilitate for other developmental projects.

NM Was deforestation identified as an environmental problem in Luansobe by the community?

KM Yes.

NM What are the causes of deforestation in Luansobe apart from charcoal burning?

KM Well I think tree cutting has been a major concern in forests apart from charcoal burning of course others use it directly as firewood, that is one other concern. If there could be a method of conserving the amount of firewood that is consumed by households, like one time I heard about some wonder cooker, those braziers that were developed, may be these should be introduced to such communities who are posing a danger to the environment by cutting down trees indiscriminately for firewood and charcoal to sustain their livelihoods. So that is one other concern, for fuel and of course for sale, that is why they cut down the trees.

NM And are there any other activities that contribute to deforestation?

KM Well I think the other one is cultivation and if the new farming methods that are being talked about where they are using more friendly farming methods like introducing certain plants onto their farms, those that can protect the soils and enrich the soils instead of relying so much on fertiliser which causes people to cut down trees to clear more land.

NM Are the projects embarked on, that is bee keeping and fish farming, deterring people from cutting down trees?

KM Yes and of course with the provision of a pig sty, those that are in this activity, the diseases are now controlled and at least they will have an alternative source of generating income. But this has not taken place. So keeping a few just around the yard is not good enough but if they are in one environment it's easier even for the veterinary people to visit and assist.

NM In conclusion would you say that the ESP/CEMP has achieved its objective of improving the livelihoods of the communities and at the same time conserving the forest resources?

KM Well I'd say the project would have achieved its intended purpose if the projects were implemented to completion. Then it would have achieved a higher percentage of improving the conservation of the environment. But as it is people are discouraged and disappointed that the programme they started so vigorously has not come to fruition, it is a quarter way done. So I think there is that disappointment by the community. I mean what do you expect, it's for them to get back to their usual lifestyle which we are trying to deter.

NM How are you working with the Forestry Department?

KM The Forestry Department if anything they are part and parcel of the Planning Sub-Committee. They have been reliable and consistent, working very well. They consult in certain areas where there issues they feel they need to consult and advise before they can do anything. But otherwise we are working very well and the relationship is very good with the Forestry Department. Even the members of the community if they have a problem they will come here, we will call the Forestry Department and we will sit down and talk and see how we can assist the community.

NM In terms of capacity building under the ESP, would you say that peoples' capacity has been built? Have the communities been empowered to manage the forest resources better?

KM Yes and no. Yes in the sense that the introduction has been done but as I've said, we have not concluded the programme. The development of the programme up to completion would have seen more capacity built because at the end of the day when you hand over a project, you hand over something that is complete then they would have learnt. Because as it is they just started learning the lessons and half way through you curtail

the programme. So I would say on hand they have not completed, but they have started the basics.

NM One aspect of community development is that communities usually have a system of living with the environment, they have a set of traditional knowledge. How has this traditional knowledge been used or completed by the ESP/CEMP?

KM Well you see, the traditional way of living with the environment is somehow very limited. Many times we do not realise the impact of what we cut down. We were not keen at planting trees when we cut them down, we leave them to nature to replace and not us to take the initiative to replace. Basically that is why we are introducing the planting of trees so that people see that when you cut down a tree, you need to think of replacing that tree because it takes so much time to mature into one that you can utilise. So basically those are the lessons that we have introduced to see the shift from the traditional way of looking at nature replacing itself. So basically that is something I see that has not been successfully done because it was half way complete.

NM Have rules and regulations on the use and management of forest resources as well as the benefits from the projects been made? Who set these rules and regulations?

KM The council is the agency of the Commissioner of Lands but when it comes to development, this body (DDCC) has been brought together to oversee development in the district. Now as concerning your question, the curriculum as to the utilisation of resources that come out of the projects that the community are implementing, during the time that we educate, build the capacity in the community we explain what they are going to do. We start from certain things that they have been doing. You find that in these communities there are certain groups that come together, this is what you are going to be doing and maybe rotating. You have heard about the *ichilimba*, that is money that is rotated around a certain group of people. So that is one method of saving. And you explain how, when these resources come into the community basket, how this fund is supposed to benefit. These explanations and guidelines are given to them. Then together they are developed with the community. They explain how it is supposed to be and what they understand, then they develop. In certain communities they will have a constitution in place which explains how the resources are going to be used. The communities themselves come up with a constitution which explains how the resources are going to be used as opposed to something that is imposed. We give them guidelines for how they are supposed to come up with the rules so that no single individual monopolises the resources.

NM Since funding has been suspended, does that mean that you as district facilitators have stopped visiting these projects?

KM Well I think for now honestly speaking it will be very difficult to hold a meeting and talk to the community because the next question they will ask is when is the next funding coming and you have no answers to give. And more times than not you would want to avoid holding a meeting and talking about a project when you haven't completed the project. I would safely say we haven't been back except the time the programme was just suspended, we went to the community just to explain what has happened.

NM So would you say that things are not looking good?

KM No, no. you know we want that the next time we go there, we go there at least with good news. And if there is a new project we want to implement but even there the resistance will be how much contribution they are going to make. That is the biggest question. How much commitment are they going to have towards that project having seen that the earlier one has failed.

NM Big job for you....

KM Big one actually.

NM Thank you so much

KM You are most welcome.

Interview

Interviewee: Christopher Lungu, Coordinator – Environmental Information Network and Monitoring System ('CL')

Interviewer: Nelly Mwango ('NM')

Date: Friday 14 November 2003

Venue: Ministry of Tourism, Environment and Natural Resources Building, Lusaka

NM What institutional structures are in place from national level to community level to implement the ESP/CEMP?

CL At national level, there is the National Environmental Committee (NEC) which is charged with policy approval of the ESP/CEMP. It is also the advisory group to the MTENR. The Permanent Secretary of the Ministry is the chairman of the committee. The NEC as an implementation unit ensures that activities under the programme are implemented accordingly. The CEMP component falls under this unit. At district level, there are the district councils. The DDCC is the over-arching body overseeing the implementation of the ESP/CEMP. It is the planning body under the Local Government. The DEC is a sub-unit of the DDCC and is responsible for environmental management at the district level. The committee comprises 15 to 16 members. They are representatives from all district departments in line departments. The DEC has a number of responsibilities which include developing environmental profiles, identifying community activities, developing a work plan and budget for the district. The budget for the various projects under the programme is channelled from national level to community level through the district council DEC. The ESP used existing institutional structures as much as possible to implement the CEMP. But at community level, ADCs were created where there were no institutional structures in place. The size of the committee depends on the size of the community. The chairman of the ADC is the link between the DEC and the community. The executive of the committee which include the chairman, treasurer, secretary and committee members are elected by community members. Each project also has a project committee. This committee is responsible for funds received from national level through the DEC. Members of the committee received training in financial management and take responsibility for any misuse and mismanagement of funds for the project. The rules and regulations on the use of project funds are clearly defined and understood by all committee members. The committee members also received capacity building in terms of project management which is now used in other projects other than those under ESP/CEMP.

NM How are conflicts among stakeholders resolved? What conflict resolution mechanisms are in place?

- CL** The roles and responsibilities of all community members are clearly spelt out. These are documented and kept at ADC/CEMP offices at district level for access to all members. In cases where community structures are not very strong, the DEC comes in to resolve conflicts. If the case is very sensitive, it is taken to the national level.
- NM** Are the roles and responsibilities as well as rules and regulations agreed to by all community members?
- CL** Yes. The roles and responsibilities, and rules and regulations are agreed to through participatory rural appraisal approaches with the communities. Transparency is also achieved through community meetings at which these decisions are made. Therefore one can see that the ESP/CEMP is a bottom-up approach to the management of natural resources. Firstly, the communities in which the programme is implemented are identified through scientific methods which include the need for environmental conservation and improving environmental degradation in these areas. Community participation is achieved through the identification of problems and solutions by the community members themselves.
- NM** How are the benefits from the projects and natural resources shared among community members?
- CL** At the initial on set of each project, there was a certain number of community members involved. The intention is that once money is received from project sales such as honey from bee keeping, the project committee decides how the income should be distributed among members. In certain communities, each household with an individual bee keeping project can sell and keep their own income as private investments. But each household can take their produce to a central marketing place run by the community. This is done through mutual understanding between the community members and the central marketing body. At the end of the day, the marketing body gets a percentage of sales made for administrative purposes and to sustain the running of the marketing body.
- NM** What is the extent of government involvement in the decision-making and implementing processes?
- CL** Government involvement in the implementation of the programme takes on many forms. These include imparting skills to community members for example assisting in problem identification and funding projects. Communities have also been assisted in obtaining land legally in order for funds to be made available for projects. The government has also enabled the capacity and ability in leadership and management skills to be

imparted to community members. This knowledge is now adopted by other communities through exchange programmes through which communities learn from each other.

- NM** What mechanisms are in place to ensure that leaders report back to community members on the implementation progress?
- CL** At national level the process of feedback is achieved through a meeting with the steering committee at which the DEC members are invited twice in a year. At district level the DEC meets once in a month and gives a feedback to the DDCC. Where possible, internet communication is used although this is limited to very few districts.
- NM** What is the level of government control in the implementation of the programme given the institutional structure that has been set up?
- CL** government control is terms of financial regulations of project funds under government procedures. In addition, government gives money according to the amount asked for by the communities. Government has the right to take signatories to project funds to court over misuse of funds under the financial regulations. The disbursement of funds follows certain requirements which have to be met. Once a project has been approved, the community is given 36% of the total amount for the initial part of the project. The project committee is required to open a bank account within the community area in which funds are deposited. Community members are asked to raise their own funds to open the account. After the initial amount has been used accordingly and accounted for, the next amount of funds is released. This method is followed until all funds are disbursed. Communities are required to send all receipts obtained in the use of the funds for purposes of accountability. In cases where communities cannot account for money used, the disbursement of funds is suspended until the community pays back the money. One such example is the Luansobe community where about K2 million was not accounted for and the community was asked to pay back the entire amount before more funds could be disbursed. After suspension of funding from the World Bank, the budgeting for the ESP/CEMP has been given to the MTENR to continue with the running of projects. K500 million has been released by the government to be distributed to certain communities by the MTENR.
- NM** Since the World Bank has suspended funding of the ESP/CEMP, how is the programme going to be sustained to ensure completion of projects already implemented?
- CL** Sustainability of the ESP/CEMP is ensured since government has taken over the role of funding the programme. Sustainability of projects is also viable through community participation. For example in Mpika, the

community is now selling timber, under the supervision of the Forest Department, to finish paying a contractor putting up wells in the area. Most of the projects started under the ESP/CEMP have not been realised due to the suspension of funding by the World Bank. There is sustainability in the sense that in some of the projects there is that determination to address the issues at hand. In some places they are already harvesting honey and they are selling it. Maybe they haven't done the processing but they are selling the honey. So determination is there. The only problem that is there is that most of the targets that were set for these micro-projects were not actually achieved. In the design of ESP it was actually very presumptuous to assume that we were going to go to a community, get a micro-project done or implemented within two weeks because we did not have the structures in place in the first place. Who were you going to pay? And who is going to accept to be involved in an environmental project when he does not know what benefits are there, maybe it is just another government programme and so on. So the process of preparing a bankable micro-project with well known benefits took time. The minimum was six weeks and in some cases three months because of the issues on the ground. Now this project was a reform programme and had never been tried before in Zambia so no one could tell you it can be done in two or three months and that is why we started with two districts. Now certainly most of the micro-projects were actually coming to a stage where they were going to start producing very good benefits at the time of the suspension of funds. And that is where the problem is. At the time of the suspension that is the time when ESP was almost coming a stage where we would be implementing these activities and seeing the fruits which we can even assess now. Now unfortunately funding was stopped. Now there are so theories to this, okay there could be issues of misuse, accountability and so on. But you see, looking at the history of the World Bank also is that they reached a stage whereby now they know that now you are at a stage where you draw a lot of money. Because if they had run up to maybe March this year and so on, I'm sure we would have exhausted all the money in the micro-projects. The Bank also has its own reasons but sometimes the things they ask for are almost impossible. And sometimes they want you to take things to the community which are unrealistic but they tell you this is what the Bank wants. Now you have to bring them down because you also do not want to use the community as an instrument of achieving certain objectives. I think the issue is to see the benefits that accrue to the community without attaching these to any unknown objectives or unknown agendas. So the suspension, yes it has been quite negative, but at the political level I think it has been addressed. I think the councils and people have been going round and explaining the situation on the ground. The government has shown commitment that if donors do not want to continue assisting then we cannot force them so we will put our own money there. But it is a negative trend and the credibility issues are not just for the Zambian government but for the World Bank as

well. Why would the World Bank get into a project and back out just half way through? So these are issues that are being discussed now. A report has been written and the same issues that you are asking are being discussed and even much more than what you are asking because we have to be very brutally frank about these issues. And a lot of people are asking now why did you suspend funding these projects because we took these World Bank chaps about two or three weeks ago to some of these areas. First of all they were scared that they might be stoned. But we told them no they will not sit you, sit down and see. Have you seen this project? Have you seen how committed these people are so what is the problem? So now they are saying they should not have suspended. So we will wait, maybe the outcome in a few months time is to talk to the government and they will do something.

NM What were the reasons given by the World Bank for suspension of funding?

CL Now, the reasons why the World Bank suspended funding. In the cooperation agreement with the World Bank what normally happens is that we have agreed bench marks. We'll do this, we'll that and so on. One of the biggest problems we had was what we call disbursement problem. The movement of money from the World Bank to the activities at community level. What you might call the burn-rate, how fast this money is being burnt or spent. This movement was very low. This was a five year project. You see the way the Bank calculates is by how much money has been spent this year irrespective of whether a PRA needed to be done because if the government of Zambia prepared this project document and knew that this thing would be done in ten years, why did they make it five years? So there was the design issue to the project there. Some things that were said to be done in certain period of time could not be done simply because they needed more time in the field. So there was a problem. PEF, which is the environment fund, was not spending money quick enough. But you must also realise that you cannot just throw money at a community, you just cannot throw \$100 000 to a community, it is not possible. So that was a problem. In the account, the disbursement, what we call the disbursement issue, it was too low compared to the time we agreed to complete the project. Now I explained that we started with two districts and then moved to the others. And because we did that, at the time of suspension if we had continued the disbursement would have actually increased because we had more projects would have been approved and they would have been in the second or third levels of implementation and then we could take on more money. Mind you, you have to justify that money. So that was one issue. And either side can be blamed for that. One on our side, we were optimistic to design a programme for five years which was meant for 10 years. That was one issue. The other issue was counterpart funding during the implementation

of the programme. It is now that the government is actually giving us counterpart funding. So what was happening was that 100% financing of all activities was from the World Bank. Now for each micro-project 75% was supposed to come from the World Bank and 25% from the government. But you see there is no way you will hold projects for 25% so what we used to do is pay and when government money comes you square up the books. But it never used to come. The other issue was procurement. The World Bank has very strict procurement procedures. The Zambia National Tender Board (ZNTB) and some procurement agencies do not know how to procure. In other words, the procedures that are there for you to buy goods and services are very clear. At the community level these procedures were explained very clearly to them that if you don't do this then there is a breach of this because this money is coming from this agreement. Now, some communities had some problems in procuring the services, some did not. But in general procurement became an issue because of disbursement. The last one was the issue of financial management, that is at national level. What the World Bank had said to do was that it wanted a very clear financial management system to be in place to manage the resources, preferably detached from the Ministry. At the beginning of ESP we did not even have a manager. The project coordinator was a civil servant and that was already a problem. We did not even have a full-time accountant. The accounts were handled within the Ministry. So you can imagine there is pressure to account for things properly and you know projects normally attract qualified people to do project proceedings while government may have the qualified people they are more into civil service issues. So those issues became quite serious in the sense that the World Bank was concerned that we might have compromised certain issues in terms of accounting for the resources even though we might not have done so. But the way the procedures have been going is not what the World Bank expects us to do. Now what happens with the World Bank is that there are normally eleven indicators. If you reach the fourth one, any four of the eleven, they suspend funding. So we reached the four. So this information is what we took back to the districts after the suspension to dispel rumours that the DEC had stolen or the projects committee had stolen and so on. These are the reasons that led to the suspension of the projects. The key issue here is disbursement because of the nature of the projects, most projects are long-term for about six to seven years. Now if at the stage of for example planting a nursery you get a suspension then there is a problem. Let me give you an example for Mpika and Mufulira activities started in 1998, we only got to other districts in 2000. Now if you are supposed to spend so much money in the first two years how can we do it in just two districts and in these two districts it took us up to three to four months to get the districts to a stage where the districts can do something. So it was shorter in the other subsequent districts but even there in the two years we can only do certain things because of the processes involved.

Now if we designed the programme properly we should have scaled it properly to say that we expect to spend so much in the first two years because we are in two districts and so much there because we have learnt so that we are able to do other things properly. We learnt a lot from the two districts but the other districts that came after 2000 suffered because of the suspension. Now what happens is that if you spend money wrongly they call it misprocurement. Now when there is misprocurement what happens is that when you apply for more money, let's say have new projects and you ask for K50 million but because you misprocured K25 million, the World Bank deducts K25 million from the fund and will give you K25 million. Meanwhile you have promised the communities that your money, K50 million, is coming. And when the money is not forthcoming, the communities are disappointed. This is a big problem with the government. So you have to make sure that you follow all the set and agreed rules of procurement with the World Bank. So if you have to do this kind of thing, you have to have sharp managers, you have to be very clear about the process and don't tell people it can be done in three weeks when it will take three to four months.

NM In terms of the projects that have been embarked on in Luansobe, there has been no harvesting of honey so far because the hives were infested by red ants; there has been no harvesting of fish because people keep stealing the fish from the ponds and the orchard and tree planting projects are more long-term ventures than short-term. Now how do you deter the people of Luansobe from going back into the forest and cutting down trees and burning charcoal if they are not getting any income from the projects now?

CL Now that comes to the problem of the identification issue. They know that the long-term benefits from a tree takes about 15 years. But there are indirect benefits. If they don't disturb the water source, the streams won't dry, they will grow their vegetables, they will do a number of issues and you don't have to wait for 15 years to see that. The moment you get trees in the right places and don't disturb the water source and so on, you are able to see that you have cleaner water and vegetable gardens are growing very well. And they are able in that space to say in that they are always fighting in these areas and they can see that are trees in the area and that is why everyone wants to do activities in the area. And if you are to ask them now to go into those areas maybe after three or four years of not having done anything there, the situation has improved greatly. So they do understand themselves, they actually have their own responsibility towards looking at these issues. Now let us look at the issues of exploitation in the national forest. Now through this process we have linked the communities directly to the services of the Forest Department because the forest officer is part of DEC and he also has his own programme based on the Forest Department. But they know he has

access now not the way he used to come before like he has come to arrest charcoal producers, he's coming now to look at the progress of the community. Now in the process he will pick up all these issues and know that there are still a few people who are going in the forest. Now he discusses this with the projects committee and says we agreed that this was a problem, what can we do as a community? They can even agree and say we know who is doing this and in most cases they are people who are staying in the community. So they can even facilitate in the enforcement of certain regulations because the Forest Department will know now who is coming in. So there isn't that confrontation anymore, there is cooperation because in the past you see a forestry officer and GRZ vehicle, they all run away in the forest. But now if they see a car, they admit that yes there are those that burn charcoal but the question is are they licensed? They say no so we say well what can you do to help us to make sure that anybody else who wants to burn charcoal is licensed so that we don't over-exploit. The committee will know in the village who is doing what and they will approach them and say I think it's better you get a license so that you do it legally. So in a way you bring out all these legal actions to the stage they are supposed to be.

NM Did the communities understand the relationship with the government in the implementation of the programme as the co-management of natural resources?

CL The communities actually understood their roles and responsibilities not towards the projects specifically but in relation to the environment and natural resources. For example they understood which areas actually were an offence, what an offence meant. They understood what they can do to regularise issues instead of always being on the wrong side because some don't always like being on the wrong side, it's because they don't understand. They understood for example their relationship with the environment and natural resources. It is very difficult for someone to relate to a forest, you don't own a forest. So what is your role in a forest. That aspect is understood indirectly by saying that if I involve myself in a productive activity, one or the other I am protecting the forest. Not by saying don't go into the forest to cut wood but by saying if you clear the trees then you will not have water in your streams in the future. They understand for example that if every three weeks at least 50% of the community end up going to the clinic for diarrhoea and the like, there has got to be something wrong with the way we are handling our water and sanitation. So we need to sink wells of this nature. This complex issue of environment and natural resources interface, in a way they understood their role, why they are there and also how they can participate, participation meaning how much we own, what's our stake. We know it's government and us but how much of it is ours. At least that concept started coming up because government is prepared to give you an

incentive to start up activities within this area then you realise that natural resources are like a bank, I'm investing so much so I should be able to get so much more. That concept came up through the development of action plans and making sure they manage their own projects and finances as well so that if something goes wrong this can be reported and accounted for. If committee cannot account for moneys, they are told that the next disbursement will be less the unaccounted moneys. So there is pressure on the committee to account for all the money.

NM Now you find that most of these rural communities live off natural resources and so have certain traditional knowledge on how to use these resources. Was this knowledge incorporated into the ESP/CEMP?

CL Exactly. You know the project worked with the Traditional Healers Association of Zambia (THAZ) and we discovered that in most of the districts the vegetation is diminishing because people are going to the bush to dig for medicine to give people. So we talked to the THAZ saying we don't have the trees. So a project was designed with Dr Vongo of the THAZ to populate some trees in Chibombo district. An area was identified where they would identify the species of trees and plants to grow there. So that is how we incorporated traditional issues in this project. Unfortunately just when it was about to be implemented funding was suspended.

NM How were the boundaries of the various communities in which the ESP/CEMP is being implemented determined? Did the communities participate in this process?

CL The size of the project areas, it had to do with size, I think we used the scientific description from the Ministry of Community Development. They have what we call the community. So we tried to work within those defined areas so that we would be in line within the national way of defining an area. The first two districts, for example in Mpika, the approach that was used in this district was chiefdoms. A chiefdom became a community. So we had four chiefdoms and in the evaluation we discovered that this was not a very good approach because chiefdoms are quite wide. That is why I think eventually a more focused approach from the Ministry of Community Development was adopted to define what a community is. But also we tried to make sure that these communities or areas are consistent with the prevalence of an environmental issue. For example deforestation in an area, we try to cluster those villages in one community because they appear to be in a geographical area which requires a particular action. The communities were informed on how the selection process was done because we had to explain why their neighbours are not there.

NM Would you say the ESP/CEMP is a good programme?

CL The objectives of ESP were very good because in short it is one way of the government and the World Bank investing directly into the communities. It is one way of transferring money straight from here into the community where you have got a community manager actually managing the resources. That is one objective of the programme. The second objective is to increase the awareness of the community about the natural resources. That is what is at stake here. So issues of cost sharing and benefit sharing could easily be discussed under the ESP framework. For example if government is giving out timber concessions how much can we get? So we can easily discuss because people are now participants in the process. So this awareness was created. And also these legal issues surrounding environment and natural resources became very clear. I'd say most of the objectives were good. The implementation side suffered because of funding issues. If the problem is with disbursement, maybe the lesson that should be learnt is that we should plan more realistically next time so that funds are used over the right period of time. And obviously it brings into question the issue of policies, do we have a local policy for this kind of thing in Zambia? Remember we are yet to develop an environmental policy and maybe if we had one this could have guided us in implementing the programme. So if we had it then it would have even guided what we do at the community level and the question of what the size of a community. So the lack of a clear definition, choice of areas where we should do these projects, and things like that..... those are issue that our policy as at now....we do have a policy yet so those could be some areas for discussion.

NM ya....just out of interest, why up to now don't we have an environmental policy?

CL It was supposed to be one of the outputs for ESP K1 but the responsibility of doing policy coz with ESP we had monies set aside for the Ministry under the Planning Department, US\$250,000.00 but they failed to do the policy for their own reasons. Because on the project side, we cannot write it because policy services it's them and Cabinet Office. The money was never spent.

NM Thank you Mr Lungu...

CL You are welcome.

Interview

Interviewee: Mr Banda, District Environmental Facilitator ('B')

Interviewer: Nelly Mwangi ('NM')

Date: Monday 17 November 2003

Venue: CEMP Offices, Mufulira

NM How long have you been district environmental facilitator of the CEMP in Mufulira district?

B I came in 2002 and found eight projects on the ground at the time. Three of them were at field appraisal level and they had done applications, and were waiting for funding. These include Kawama West – the irrigation of plants using treated sewer; water and sanitation for Kansuswa and another water and sanitation for Mama/Ngolo. Those were at field appraisal level and they had even applied and were waiting for funding.

NM What institutional structures are in place to implement the CEMP at district and community levels?

B There is the project management team that is responsible to the area development committee. The members of the PMT are elected by the community to coordinate and manage the projects under CEMP. The ADCs sensitise community members on issues regarding the CEMP and assist in identifying leaders from within the communities to head the various community bodies. The ADCs also help to organise the community bodies in the implementation and management of the CEMP. Members of the ADC are elected by the community. The community development committee (CDC) is the main body that oversees the activities of the other community bodies. The chairman of the CDC is elected by the ADC. The resident development committee (RDC) is the body of community representatives that are closest to members in various residences. The RDC is responsible to ensure that the members' complaints and needs are taken into account and addressed. The RDC is hoped to adopt a standard constitution of RDCs under the council, which provides for a three-year term of office for office bearers. The current committees have been in office since 1998 when the programme was initiated.

NM How is the selection of committee members done? How are community members involved?

B As a council, we take it as a development act in the community. And you know this time you can't just go into a community without a needs assessment. It means you'll draw a blank. It's better first of all before you

take in any project, you sit down with the community and tease out the needs of the community and then try to prioritise which one the community feels should be the first to be addressed. And then you follow that order even when you come in with project coordination, you follow the order the community want the problems to be addressed. And to do that, you need to have a point of entry and that is after the needs assessment, there is heavy sensitisation through PRA toolbox and there the community is made aware and then the community should actually come up with leaders they feel can lead them to form these RDCs. And then a day is set where a community meeting is called to hold elections. When elections are held and the RDC team is put into office, the RDC team together with the settlement team or the district team go into the communities again and assist the RDC to form zone development committees (ZDC). That is to make it more manageable for the communities because now they will be starting from grassroots level, coming up with problem identification at grassroots level that they will transmit through their representatives at zone level to the district team.

NM So once the RDC is formed, does it go out into the communities to form ZDCs?

B When the RDC is formed, it needs to be guided all the time. When they are forming the ZDC, the RDC together with the district team, that is the facilitators, should go into the communities now and get the statistics of the houses and then come up with how many houses per zone should be counted.

NM How are conflicts resolved and how do community members participate in conflict resolution given the institutional structure in place?

B When you find that there is a problem in terms of implementation, you just can't start looking for solutions. You need to go back with the problem to the people and find out where things went wrong. When you identify the problem areas, it will be easy for you to come up with solutions together with the community because the community will actually guide you. So, conflict resolutions are actually done after investigations. The RDC together with the district team will know, will realise that something is wrong when the project is being implemented. For example the water and sanitation project in Murundu where electricity has been shut down by ZESCO and then they are seeking assistance from outside so that they can have electricity restored. But this is just a short term measure. But find out where the problem is so that in future you know how to take care of the problem. We're talking about sustainability here, how do you sustain, which resource is going to sustain this project. So we said let's go back to the people because when we were coming here to bring this project it's the people that we consulted. And the numbers that they were giving us

was 15, 000 plus population. When we counted that and made our mathematics we found that it was possible for the community to sustain this project. Now you find that there are only very few who are paying for the water, the rest what is the problem? Where have we gone wrong? Because during the sensitisation we agreed that there should be no other source of water apart from this one that we are making so that we can sustain it. If people are coming up with other alternatives then something is wrong, we must go back to the community and talk to them.

NM In terms of community involvement in the decision making process, can you say that it is there at every stage right from identification through to implementation?

B That is what is supposed to be done if you want to sustain the project. Because if you don't consult the community you will have problems along the way. If you have seen the institutional structure in place, it has arrows going both ways from the various committees. This means that planning should be bottom up and as you are going, whatever you discover in the upper levels of the structure must be transmitted back to the residents for consensus. Because if the residents feel that after they have made their submissions through the ZDC as a policy making body, if during deliberations some of their suggestions have been dropped, these must go back and tell the residents with reasons why they feel the project is not feasible. And if the community still feels that their problems should be addressed, they should come back and then the professionals here will then advise accordingly. For example if you are dealing with a project of coming up with a clinic the residents will just know that since here we are so many who are falling sick we need a clinic. But sector personnel from the district team will come in and look at the distance required between clinics, what population is one catchment area supposed to have. So those criteria must be fulfilled before you go back to the community to tell them that it is possible to build a clinic in the area because you qualify under the district criteria.

NM So the views, the opinions and the needs of the community are taken into consideration at all times?

B Yes because we need them to be on board at all times. For most of the successful projects, this is what is done.

NM Are the roles and responsibilities of all the community members clearly defined and understood by the members?

B Yes in fact the community knows the roles and responsibilities because before elections the first thing the district team does is to explain the duties of the various committee members. After elections, there is what is

called capacity building. Now, we go into details so that the RDCs should actually know the boundaries in terms of their roles, how they can go. And then all the time the community knows that the chairman is supposed to chair community and RDC meetings. Even in this forum for zonal representatives (FZR) the chairman is the one from the ZDC. So the roles are well defined, infact if you went into the community find out what these committees are doing, they will be very happy to tell you that this one is supposed to do a, b, c, d. Normally when we meet, we give them our problems and when they go to present our problems to the community and as they come back, they come back to tell us what they have resolved. Except that you know where projects have failed most of the time, it's this group, the RDC, if its capacity is not built, it will not know how to maintain the interface with the other bodies in the institutional structure.

NM In terms of capacity building, are community members empowered with project management skills right from the beginning?

B Yes, actually because nowadays, the people would like to address their own problems minus importation of professionals and things like that. What they want is when you say that this is your project, they want to have a project team that will be handling funds. They will have a treasurer that will be looking after the money, they will want to account for the money themselves so that they see that they are able to manage their own problems.

NM How often to the RDC and FZR members give community members feedback on the progress of projects/CEMP, both positive and negative?

B The process is that the ZDCs are supposed meet at least once a month, and FZR are also suppose to meet once a month. The RDC, as the executive, is supposed to meet once a month. The RDC according to the number of suggestions from the communities through the ZDCs will choose the date every after two months to have forum for zonal representatives so that they can review the problems or onwards to the district team for action.

NM Are there rules and regulations to govern how dividends from projects such as bee keeping and fish farming are going to be shared among beneficiaries as alternative sources of income?

B I think we have started from somewhere on that although we have a long way to go because we need to literally control the use of natural resources. Essentially it has been very easy for our friends in protected areas because there, you don't just walk in and get NTFPs or cut down trees because there are fees to that effect. For us we are saying there is an area that belongs to the council and we also want to regulate that area

so that we are able to control the utilisation of natural resources. So we have started with fees on charcoal and firewood. People should not just cut firewood, they have to pay something.

NM How much could this be?

B It's in kilograms. There is a by-law to this effect. For every 25 kg bag of charcoal, we charge K500. And for firewood it's in bundles, it starts from K1 000, K5 000 and goes up according to amount. We have also seen that the number of settlements, as they are constructing houses they are cutting down a lot of trees and this contributes to deforestation. So we want to actually come up with a fee that we are going to charge so that we also discourage illegal settlements. I have an example of the Kakumbu national forest reserve where their firewood is K20 000 per tonne, bamboo and dambo sand K3 000/tonne, river sand K4 000/tonne, gravel and stone K5 000/tonne. And things like bamboo trees, thatching grass and other natural resources are being charged as way to control the use of natural resources.

NM And you want to use a similar approach?

B Yes, this is where we are driving towards. We want to ensure that anything that is extracted from the environment, at least people must pay for it. Because as it is now, anyone who wakes up early in the morning can over-harvest NTFPs such as *masukus* (an indigenous fruit) without being charged.

NM Can this be a disadvantage to other people who will not benefit from these products?

B Yes. There are also mushrooms which some people will get a lot of bags. So we need a lot of sensitisation to make people aware that these things are coming from the environment and the environment needs to be sustained. And we need to go in as local authority to try and regulate and assist the environment to keep up and regenerate.

NM If people worked together as a community in gathering NTFPs such as *masukus* and mushrooms, couldn't they use the dividends, shared among themselves, from sale of these products as a source of income that will deter them from depleting other natural resources like timber?

B Yes. Because you know like in other areas like the Luangwa game reserve, what used to happen is that at first it was top-bottom kind of arrangement. The community was getting very little and they were always begging from the top. And so it was discovered that the now people went out, rampant killing of animals. At one time there were about 100 000

elephants but within 3 – 5 years, they were reduced to 10 000 because people wanted a livelihood. So they discovered that they are going to deplete everything and they will have nothing. So they went back to the community and had a workshop and told them that now we need planning to start from the grassroot level and whatever is coming from your area, 80% will be retained there. And the communities have now come with this kind of businesses now. And if you go there, people are not starving and the population of elephants has increased again.

NM In terms of the percentage you have given in the example for benefit sharing among communities, have you done the same in Mufulira for the various projects?

B Here we are starting from somewhere. The idea for us to form these RDCs is to ensure that we know that we have not provided any services in these areas. And if we are failing to provide services in the town, it will take us time to provide the same in these areas. So we said fine, in the settlement where you are, you need to have a market. So whatever proceeds are going to come from the market, 100% you will take. That is what was done. And this is the money that will assist you to maintain the roads and carry out small developmental activities in consultation with the council. So we haven't, like in Kawama West and East markets, we are not collecting levies. We have left it to the committees to collect, but we assist them with receipts so that they are able to account for the money.

NM How do they deal with people who do not comply with these rules and regulations in terms of charcoal burning or firewood collection? Is there some kind of policing mechanism within the community?

B When the ESP/CEMP facilitators went in to do the PENA, sensitising the community on the need to preserve the environment, they did not come up with a constitution per say. Because the constitution is supposed to spell out all these issues we're talking about. Now, the purpose of this programme is to protect the environment and control deforestation and the like. Now, what we would want to see is anyone, if you have an environmental committee, anyone who burns a bag of charcoal will have to give the committee so much. Once these are formed what we are thinking as the council, the collection of moneys in the peri-urban areas and far flung places should be done by those committees, we just send an officer there to go and collect our percentage because for example if the community had resolved that for our committee, out of one bag you will retain K1 000. But meanwhile the council saying that for a 25kg bag we want K500. So those chaps will collect K1 500 for one bag of charcoal and K500 is ours. When we go there they will just remit what belongs to us. They will retain K1 000 which is bigger than what we are collecting. The idea is to ensure that the community knows that they have actually been

given the power to control. Now if they know that there are such benefits coming out of this, they will not allow rampant activities like charcoal burning. So we are looking to such a scenario.

NM To what extent has government been involved in terms of decision-making and implementation processes?

B Currently, government is 100% in control because we have not yet come up with effective structures at the grassroot level to assist government control this kind of thing. What government has started doing is sensitising the community that they become aware that the environment needs to be protected. Because if you sustain the environment, future generations will depend on the environment. And talk of Mufulira for example and those areas that have been that have been affected by the ESP programmes, the community is very aware that unsustainable utilisation of natural resources will bring negative repercussions in the future. These include that some of the trees will not regenerate, some of these good things that come from plants will not be there and timber will not be there because they will all be cut, there will be no plants. So they are aware, what important now, what is remaining is perhaps consolidating structures that will assist government control these resources because the community now has the knowledge, but they don't have the structures and the by-laws. It's the by-laws in terms of a constitution that we want to come up with to assist control the use of natural resources. When the government knows that the communities have been empowered to control their own resources, the government might even relax, it might reduce its involvement to certain extent because they know that they are being taken care of by the communities.

NM Since you are saying that the institutional structures are in place, is a legal framework the only thing that is needed to strengthen them?

B Yes.

MN How is the CEMP programme going to be sustained since donor funding cannot go on forever?

B In my opinion, when you come up with a project, the project proposal and you've gone through the project cycle, that is you've evaluated and decommissioned the project. When you decommission a project, you are simply handing over a project with a well trained and sensitised community. Structures well put, legal framework well instituted so that as you leave, you know that you've left a project that will sustain itself. But as it is the community is still waiting for government to finish and tell them that now we are through with our role and this is now your role. Because if there was the constitution, the communities were going to be empowered to collect money because right now if anyone was to collect money from

members they would be arrested because it is illegal. They don't have the authority. So we need that authority to be given to the communities to say now you guys since you are controlling this area, this committee that you have put in place, it is a statutory committee and it can collect so much from charcoal burning, of course you account to the district team. So that money was going to be used in controlling and sustaining the same projects. We've got structures but they don't have the legal framework.

NM Was the implementation of a legal framework planned for right from the start?

B Yes.

NM So what has been the delay in establishing this framework?

B The legal framework was coming after they had put up the institutional structures, they had sensitised the communities and the projects were on and we were going towards the end. They started workshops on how to come up with the best legal framework to take care of this. I remember one of our environmental health technicians attended these workshops. We have two prosecutors under the council who were trained under this same programme so that in case of those who default we prosecute. So they went for that course and were trained for prosecution and the workshops were still going on. What they wanted to do was to come and sit down with the council because at the end of it all they wanted to hand over this programme to the council so that the council now can know how to prepare its relationship with the community in terms of how much the community should retain for assisting the council to control the use of natural resources. So it was on the way but due to disruption in the funding, this has been discontinued. That is something that we expected to come from ESP but as a district we know that if somebody comes and sweeps rubbish on the street it does not look clean, so we mobilise ourselves we clean it up what that other person has done. So we are looking at that at district level through the DDCC. We are saying we can't leave this programme like this, it will repercutate negatively on the district team because we when we try and go there and tell them now we are bringing this project because the community will say no. Why should you come here and promise us a lot of things because you just do halfway and then you leave. It's better we go back to the community and complete the projects. So we are thinking of approaching other donors to come and assist in completing these projects since the World Bank has been disturbed.

NM Do you know why the World Bank stopped funding the programme?

- B** The World Bank said that one of the weaknesses of the programme was that they were not meeting the targets in terms of justification and the like. Two, was that procurement procedures were not followed. Three, project implementation was slow so they were not expecting projects to be completed in the stated time. So when they were told to justify for these shortfalls, it was difficult for them. And when you are told by the World Bank that they are suspending a programme, it means that they started a long time ago trying to advise on how to implement the programme but people did not listen.
- NM** What other activities would you say impact negatively on forest resources apart from charcoal burning and firewood collection?
- B** There are plenty. You know an African by way of survival, he does most of his activities in the bush. He survives on crafts, on making hoes, he survives on making make-shift shelters, you know settlements also cause deforestation, and traditional bee keeping.
- NM** How do the communities maintain their livelihoods, outside activities that contribute to deforestation, while waiting for the projects such as bee keeping, fish farming and orchard planting to come to fruition at the stage where they start reaping dividends from these projects?
- B** If you want to stop someone from doing something very bad in terms of these projects, there must have been some interim measure to assist that person in the interim before those long-term projects come into maturity. As it is you can give me a lot of knowledge on how to sustain the environment, how to protect the environment, the repercussions, the problems and the like. As long as you don't give me something to keep me going in the interim as I'm trying to follow your instructions or sensitisation, I'll still go back to my old way of making a living. Because right now those projects are there. You've planted trees that will take 3 to 4 years to produce fruits and for them to produce fruits to capacity and meet the population that is expectant, it'll take a lot of years. Meanwhile what are those people going to do? Because this person has identified this is his way of livelihood but somebody says no stop, plant a tree there. This tree will be giving you fruits for sale and then you get money from there instead of cutting down trees. But what am I going to do to wait for that tree to start producing fruits? What am I going to eat? Nothing. So he has the knowledge but he will go back and continue cutting trees except that now he will be vigilant, keeping in mind that if he is found cutting down trees it will be a problem.
- NM** Now in terms of project selection, were these projects selected by the communities themselves or were they imposed?

B This is a very good question because even me now I'm wondering because what we know is that people exist with their problems, isn't it? Because if you go to the community today and ask any community as to whether deforestation was their problem, they will tell you no. and if you are prioritising the problems of the community, I don't think the community will tell you that no we have a problem of deforestation, keeping animals. The way the ESP/CEMP went in was that they started sensitising the communities. They told them gentlemen, look, the environment isn't being sustained. Look at the shrubs and all the trees are cut. Look at the animals, don't you think they are bringing diseases like cholera and jiggers? They asked them do you have food, three meals a day? No, why? Don't you think if we brought you projects in this area and this area, this is going to assist you in overcoming this problem. You see, this was too scientific for the communities choose to be their projects. Environmental issues are scientific and for the community to come up and say this is our problem, it is not on. When you go into a community and you ask them what is your problem, they will normally rush to water and sanitation because they see it. Now deforestation is indirect. People go into the bush, cut down trees and burn charcoal, come back and sell it. They don't think it's a problem to them because they think God is providing the trees for them. So problems like deforestation and air pollution are national problems that came from the National Environment Action Plan (NEAP) and were imposed on the community. The communities were not seeing them as their problem.

NM But did they accept that these were problems and they needed to do something about them?

B Now after sensitisation some members of the community are aware that it is true that cutting of trees will reduce the population of trees and eventually it will have negative effects such as reduced rainfall in the area. So such knowledge is good except that it is too scientific and needs a lot of time for inculcation to the communities.

NM So would it be right to say that deforestation as a problem was not picked on by the communities but they were instead made aware of this problem and thus the projects embarked on to overcome this problem were imposed on the communities?

B You see, after the people were sensitised and the needs were identified under PENA, together they came up with problems arising out of being sensitised and then those problems were prioritised. Then the facilitators explained that for us to reduce deforestation, the activities that we can involve ourselves in are a, b, c, d. if we start doing this, you people will deviate attention from tree cutting and charcoal burning. You will now be getting your money from honey. If you do fish farming, you will have a lot

of fish and after selling this fish, the money will assist you in feeding. Meanwhile, the trees will be growing. If you plant trees, again these trees will be giving you fruits which you can sell. Meanwhile, people will deviate from cutting down trees. So people were appreciating to hear this and thinking this is okay.

NM Did they realise that some of these projects will take a long time to mature?

B Now those were some of the questions the communities should have been asking. For instance look some of us are old, do you think we will wait for five years to come and benefit from that, meanwhile what am I going to eat? Because now you're saying it is an offence to cut down trees and burn charcoal. Those chaps, the facilitators, were supposed to provide immediate answers that meanwhile you'll be doing this. Maybe they were told that meanwhile you can continue with charcoal burning, we were not there. Me I was not there. Because right now if you want to buy a lot of charcoal, go to Luansobe where these projects are being implemented. There is plenty of charcoal, people have not stopped.

NM How does the Forest Department come in to assist control the problem of deforestation?

B They are doing very good. They give licenses and they know the number of trees a person is supposed to cut to burn charcoal and the license is according to that. They have a programme where people have had no licenses, they go out into the field to burn charcoal and cut down firewood without a licenses, they are pounced upon. The Forest Department has the authority to go in, impound and bring the charcoal here to their offices and sell at their own price and then donate the money to the government.

NM Are communities able to work in partnership with the Forest Department by taking offenders to the Department to be dealt with according to the law under the Department?

B The community members do this. They report people cutting down trees and burning charcoal without licenses but this is not done with a view to control deforestation but out of jealousy towards their friends. But what we are saying is that we are going towards that as a district. This programme was done to create links between the council, the Forest Department and the community. Because structurally we are supposed to explain the roles now, what is the role of the community in terms of sustaining the environment, what is the role of the Forest Department and what is the role of the council. So when those roles are spelled out and properly defined, then we are going to commission. Then after commissioning the committees, we will just be visiting them to see how much they have

collected in that particular week and how much should be given to the council. This is actually the area that was not in place, but all is not lost. We are still working as a district.

NM So could you say that right from the beginning the communities shared the same vision and understanding as the government for the ESP/CEMP programme and how it was going to benefit the communities?

B The community was told. There was a workshop that was held where the members of the ADC, DEC and people from national level were called. Papers were presented at this workshop on land tenure, role of local authorities in natural resource management and the role of the community in natural resource management, the role of the ECZ and the role of the Forest Department. All these roles were explained because what they wanted to do was to explain to the community who for example had the authority to distribute land or to own land so that members are made aware that they can approach this office in case of matters of land. And you know that most of these projects are talking about land. If you do tree planting, you have to acquire land to do that. There were issues where people wanted to take projects into forest reserves and these affected certain offices, so they had to be explained. And how they wanted the communities to handle the issue of environmental protection, they explained that in Uganda, they have formed what are called village committees. The number of village committees depend on the number of houses in a particular chiefdom. Each village committee will have the command of certain area of the environment and they will make sure that the environment in that area is protected. Now the profits that will come from that environment like the selling of NTFPs go to the village committee and part of that money is remitted to the council. The money is being generated at village level is meant to assist them control administrative activities of the whole programme. So the structure goes just like that. So the people in Zambia were looking at a situation where the community was given powers to control the use of resources within these areas and then retain a certain percentage of the money that is coming from the environment. Because people will feel duty bound to protect the environment since they know that this is where my livelihood is coming from.

NM Have the communities been given legal land tenure for their areas to enable them control the natural resources in these areas?

B This is what this workshop was emphasising on that you see when all legal documentation was complete, we expect a situation where the roles of the community, council, Forest Department and ECZ will be properly defined with clear limitations. So they were going to create interfaces where the council, the Forest Department, the community and the ECZ

would meet at various levels. Since the ECZ is the principle authority, their officers are supposed to cut across and ensure that rules are adhered to in all these sections, right from the community up to the council.

NM Has this been done?

B This has not been done. Right now if you went to the community you won't find the community knowing how to go about the issue of collecting revenue, how to go about the issue of defaulters, how do we handle this? This why now we are working on guidelines which in this case are supposed to be the constitution. In the constitution they are supposed to write how they are going to handle such issues. You know the Forest Policy of 1998 has already has spelt out the role of the community in terms of protecting the environment. So the community is already incorporated. Even the ECZ, when you talk of development, they will not leave the community in terms of consultation. It will start from national and it comes to district level where you will have the authorising agencies coming in and then you have the community has to also be given a say because they know better about the environment. If you don't consult them, anything can happen where communities say they don't want this kind of development. So all these have already identified the important role the community plays in sustaining the environment. What was just remaining was to put up a framework or constitution on how the programme was going to run in line with existing legislation and policies.

NM Now you find that most of these rural communities live off natural resources and so have certain traditional knowledge on how to use these resources. Was this knowledge incorporated into the ESP/CEMP?

B Maybe we should take an inventory of activities done by these people. We are looking at shifting cultivation that is subsistence farming, crafts making, blacksmith handles, coffin making, traditional bee keeping, construction of make-shift shelters and settlements, traditional make shift bridges and a lot more. These are taken care of because when ESP came they were starting from the negatives to the positives. When they were doing the capacity building for example for the people that were supposed to be keeping bees, first of all they were asking the community to brainstorm on the methods they know for bee keeping. People would tell them by use of the bark of trees. Then the facilitators would tell them you know why we are discouraging the use of the bark of the tree is because it encourages deforestation. Because once you remove the bark of the tree you are killing it slowly, it will wilt and die. So they tell the community to use methods of making bee hives that do not kill the trees. In case of shifting cultivation, they advise them the effects of this type of cultivation since people cut the whole tree down to the roots thus not allowing for the tree to regenerate. So they did take into account the

traditional way of using natural resources and at the same time told them that fine, while we appreciate your initiative of using this kind of method, we would like you to use this kind of method which is more conservative.

NM Has there been community development which can be attributed to the CEMP and has contributed to improving the livelihoods of the communities in which the programme has been implemented?

B Yes. Infact those projects were well intended though they were long-term. For example there were certain components or areas in the same concerns which could bring out quick results like water and sanitation. For example we have the 14 miles community, the taps had been standing for years with no water, they were drinking from streams. And when ESP went there the people came out and said the first priority is lack of water and sanitation. These others can come later and that is when they came up with bee keeping. Immediately the DEC went into action and dug wells, fitted them with reams and 14 miles is now wet. People are busy, they have formed committees to which people pay K500 to go towards maintaining the wells. Then the bee keeping, the apiary is complete. At any time they will be harvesting the honey and this is one project we are very proud of because at least people have seen the benefits of the project.

NM Have people's capacity been built in terms of skills? Have people gained benefits from the CEMP other than physical benefits?

B: this project to me in terms of academics has been very good. A lot of education has been imparted to the communities. If one can go round Zambia now and take inventory of the projects that have sensitised the community they would not be closer to ESP. ESP did its homework properly. They went to the community and the community was properly educated on the programmes of the environment, the concerns of the environment, leadership skills, there were exchange programmes between different communities, projects management. Before any project can be embarked on, the project team is trained on how to manage a project and procurement methods, financial management and the like. They also know the role of the ADCs and PMTs.

NM Is this education process on-going or was it just done at the initial implementation of the programme?

B Ideally the educational process is supposed to be on-going that is why we have the evaluation and monitoring component. And you find that at the stage of decommissioning a project, before handing over the project to the community, you need to ensure that for example in the case of toilets the

people are trained on how to maintain the toilets. A trained committee must be in place to oversee the management of these toilets.

NM Do you think the ESP/CEMP will succeed in terms of improving the livelihoods of people and sustaining them while at the same time protecting natural resources, particularly forest resources?

B The most important thing that impresses me is the fact that people have been empowered with knowledge. That to me is an excellent job which ESP has done because right now, all those that were involved in this ESP sensitisation programme today if they had their own resources would be able to make their own apiaries and keep bees, they would make their own fish farming ponds and be able to plant trees and make very good orchards. So they have the knowledge, what they don't have are the resources to help them. That is why I was saying if there was any kind of income generating activity around here from which the people could get some money to push into their own projects. The only problem is where we have communal projects, everyone expects the other person to do the work. That is why in the absence of something that is keeping them together like a legal framework or a set of guidelines or constitution, people tend to work just the way they want. That is what will affect these projects. But in terms of knowledge, people are educated and can do anything on their own and this is very important to me. They know how to keep bees, how to plant trees and that living with animals can bring diseases. They have all this knowledge and knowledge is power.

NM Is it right to say that currently people do not have the commitment to work as communities in these projects?

B Yes, they don't have the direction because you can go there and tell them, people work together, do a, b, c, d. but they don't see it to be very important because if there was law or bible to guide them they would be able to know the consequences of not participating such as being removed from the project. Because it would be clear and in the next meeting just sit down and say sir three days have passed and you were not coming to the project area and so you are dismissed according to the constitution.

NM Are the levels of participation by the community members defined?

B No, it's not defined. It is supposed to be defined under the constitution.

NM Do community leaders try to make community members realise that these projects are for their own good and they work together?

B They try to them that this is for their own good if they work together, the benefits that come will be shared amongst themselves. But it's like we have categories of people in the community. We have the young, the old and the middle aged. So we have different perceptions. The old were saying just give us money because we won't be there when you'll be getting the benefits. I remember I took the entire committee of Mama/Ngolo to jail for having shared about K2.3 million among all community members, each getting about K10 000 because they said they were pressured by the community members. So I took them to the police and they paid back. So this is the kind of thing in which people have different perceptions. These communities need something to guide them apart from what we tell them. Because when I was telling them it is an offence to share the project money because this money is coming from donors and government has said how it should be used, so it is an offence to share it. They did not believe me and said this is our money and since it is our money why can't we share? So after they were arrested and asked to pay the money back, that's when they realised that is an offence.

NM Were communities told that they would be working with government through the co-management of natural resources?

B Yes because when they were undergoing training, they were told that there would be no handling of cash, they would just transact in cheques. If you are found handling cash, you will be arrested because government has an interest in this money. All the government wants to do is build capacity in you so that you can manage your own affairs in your own settlements. Because as you are, you are the focal point and the coordinator of development in the settlement. So if we are going to build the capacity we have to ensure that we identify the developmental potential in these communities. This will also promote sustainability. Because if we have governance structures in place and we have the people who are knowledgeable to handle these structures then we are assured of sustenance. But if people put in these structures are not knowledgeable then there will be problems and there will be no sustainability. So the government keeps control of use of moneys by ensuring that all transactions are done through cheques and accounted for.

NM Well.... thank you very much Mr Banda.

B You are most welcome.

Interview

Interviewee: Mr Tembo, District Forest Officer ('T')

Interviewer: Nelly Mwango ('NM')

Date: Monday 17 November 2003

Venue: Forestry Department Building, Mufulira

(Interview conducted without a tape recorder at the request of the interviewee)

NM What is the extent of the Nsato Forest Reserve (NFR)?

T The total area of the forest reserve is 15 000ha. It is shared between Mufulira and Chililabombwe districts. Mufulira has 8 000ha and Chililabombwe has 7 000ha. The NFR is a very important reserve because it is a catchment area for a number of streams that feed the Kafue river. These streams include Luansobe, Mindela and Kamachene streams.

NM What is the current condition of the NFR?

T It is pathetic to say the least. The reserve has the outlook of a farming block. Almost all the trees have been cleared and very soon it will turn into a desert.

NM What are the major causes of deforestation in the area?

T You have illegal charcoal burning, squatter settlements, subsistence farming. The type of subsistence farming is one that does not allow for regeneration. Trees and shrubs are cut down completely right to the roots. And shrubs are also cut down before they can grow. Although a lot of people discourage charcoal burning, it is easier to control since it allows for regeneration when done in blocks of rotation over a number of years. Squatter settlements on the other hand are a big problem. The major reason is that of political interference. You cannot get squatters to leave the forest reserve for political reasons.

NM What is the rate of deforestation in NFR?

T Well... I can't really give you a rate but in 1991 the forest reserve was 95% intact. Since the introduction of the Structural Adjustment Programme (SAP), this has contributed to deforestation because the forests are providing a source of employment for the unemployed people as a result of SAP. Today, 2003, the forest reserve is 25% intact. So you can see how bad the situation is over these few years. And forest regeneration cannot take place without political will.

NM How is the Forestry Department involved in the implementation of the ESP/CEMP?

T The Forestry Department are the technical advisors to the bee-keeping project at the 14 miles community. The department assisted the community to set up the bee-keeping project on the periphery of the forest reserve since current forest laws do not allow any kind of activity by communities to take place within the reserve area, even if the activity is sustainable. Nonetheless, the location is good for bee keeping since the bees are able to come from the forest to the site on the periphery. This has also resulted in forest regeneration in the area since community members have realised the importance of certain trees and forest resources to successful bee keeping. The project is seen as an alternative source of income that will help people to improve their livelihoods and stop charcoal burning.

NM Why has the bee-keeping project in Luansobe area been unsuccessful?

T The bee-keeping site in Luansobe does not have suitable conditions for bee keeping. The area has already been infested by red ants on once occasion, which has resulted in the bees leaving the site and going back to the forest reserve. The area also lacks tree species that support bee keeping and attract bees. So you can see that the project is not really sustainable in the long run. The Luansobe area is also faced with conflicts between the facilitator and technical advisors. There are conflicting ideas of how the project should be implemented between the two groups and this has left the communities in a confused state.

NM Are these projects deterring people from continuing with activities that lead to deforestation?

T Not completely. Squatter settlements are still encroaching on the forest reserve due to the degradation of their agricultural lands. The department is looking to agroforestry activities to overcome this problem. The Forest Department is trying to make communities realise that they should contribute towards the projects in order to protect the forest resources for their own benefit. Unfortunately the tree-planting project has been given to the Department of Agriculture as technical advisors and not the Forestry Department. These people have not been visiting the project site and giving the communities the right guidance and so the project is not doing well. The same problem can be attributed to the Luansobe bee-keeping project. The Department of Agriculture are the technical advisors. They may not be the best people to supervise the project.

NM How many people can you say are found in the NFR?

T As at 1998, the number of people resident in the forest area was over 1 000. These include both squatting in the forest reserve and those trekking between the forest reserve and the community settlements in the council area. The Forestry Department is unfortunately incapacitated to monitor illegal activities in the forest reserve due to lack of transport and personnel. Although people are not allowed to perform charcoal burning in the NFR, the Forestry Department issues licenses to charcoal production in areas outside the reserve. One such area is the Kasalia area in which people are allowed to exploit forest resources. The area is divided into blocks where people are allowed to cut trees in one block for so many years and then move to the next block, leaving the previous block to regenerate over the next number of years. The Forestry Department is trying to introduce such areas with five or more blocks to control charcoal burning while at the same time allowing for regeneration. This therefore keeps people happy with an income and also protects the forest resources. Illegal users are charged for the machinery or equipment they are found using in getting the forest resources and pay an admission of guilt once they are taken to the police. The Forestry Department also has extension services under the department which are used to educate community members on the sustainable use of forest resources. Currently the department is working with charcoal burners in forming the charcoal burners association in Mfulira. The association will assist the department in policing the forest reserve and protecting forest resources. In my opinion therefore, discouraging and arresting charcoal burners is not the solution. We just have to find a way of working with these people so that they can make a living in a sustainable way. And I think areas like Kasalia where the activity is controlled and allows for regeneration of trees are the way to go.

NM Thank you for your time Mr Tembo.

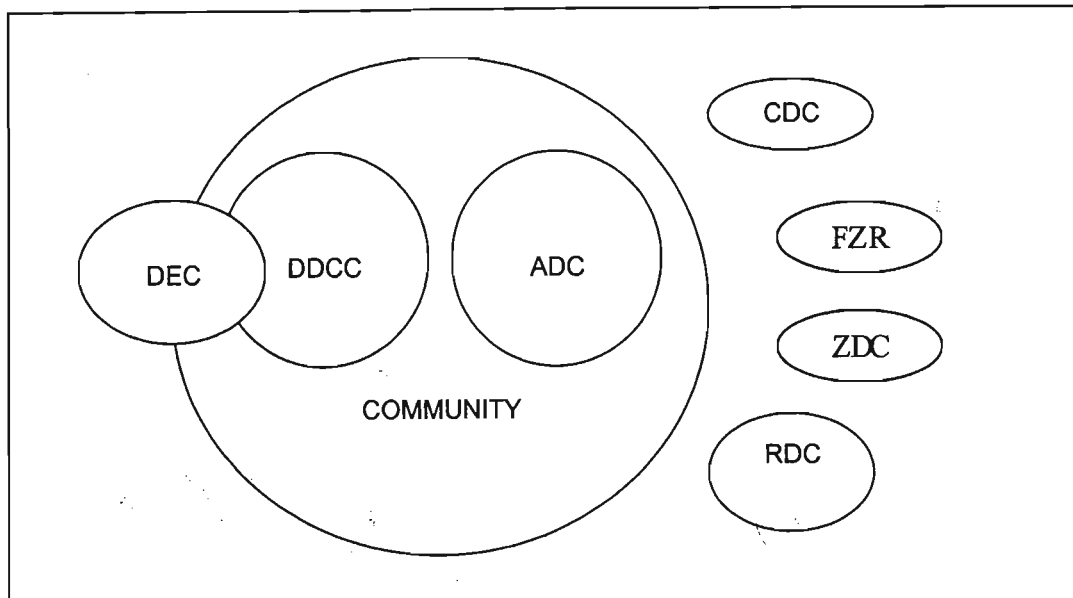
T Pleasure talking to you Mrs Mwango.

WORKSHOPS

Mushili/Shimaria Communities

Institutional structures implementing the CEMP

Institutional Map of CEMP, as seen by a group of 50 community members of Mushili/Shimaria



The community members explained the venn diagram as follows:

- **DDCC:** have quite a good working relationship with the community, members visit community often although community members this can be improved.
- **DEC:** worked with the community in initiating the formation of the ADC and CDC therefore partially involved with the community. But community feels they do not do enough. The committee officials are supposed to be involved in the community projects but they rarely visit the community and have therefore put them partially outside community involvement. Community members are under the assumption that DEC officials have mismanaged funds for the projects through unnecessary meetings at district level to which community members are not invited and this has led to the suspension of funding by donors. Furthermore, community members feel their lack of representation on the DEC has further aggravated the poor relationship and lack of accountability of the officials to the community. Having no representatives on the DEC means that the community is not involved in policy making, decision making at this level and budget formulation for the projects. They feel this very retrogressive since they are in the best position to put forward the requirements of the projects in relation to their needs. The community also felt there was some duplication of functions between the DDCC and DEC thus the overlap in the circles.

- **ADC:** has a good working relationship with the community. Members of the committee were elected by the community in 2000. It equips community members with knowledge on projects to be undertaken in the community. Community members are happy with the ADC because they always communicate with the community through meetings that they call for whenever the need arises to notify members about the programme. In addition, ADC informs the community whenever funds are sent to the community account, although they are only given cheques. However, the community feels they are let down by the government through delays in disbursing the funds. Although budgets are made early, the disbursement of funds is delayed and by the time the funds are available, the value of the money is greatly depreciated and so the community are not able to meet their original targets. Community members feel this is a great drawback which the top officials overlook.
- **RDC:** this is a new body that was recently elected by the community early in the year (2003). The committee is supposed to look after the welfare of the community in terms of the running of the programme. However, its roles and responsibilities are still not known by the community members as they have never met the RDC since it was elected. The RDC members said they call for meetings but people do not attend mainly because since they were formed community members have been busy preparing for the farming season. In addition, there has also been a gradual decrease in people's interest in the programme since they are not seeing any tangible benefits. Nonetheless, the RDC members said they communicate with the DDCC quite often since most of them are also ADC members. It is hoped that the committee will eventually work with the community since their role is to coordinate activities amongst residents located in the committee's area of jurisdiction.
- **CDC:** this body has also been recently formed and is still not known to most community members. Community members have not met the CDC since it was formed.
- **FZR and ZDC:** community members have no knowledge of these bodies and there has been no selection of leaders for the two bodies. Community members said these bodies are only known to the government officials.

Decision making, formulation of rules and regulations regarding the use and management of natural resources under CEMP

Community members were all in agreement that they initiated the projects under the CEMP as alternative sources of income to activities such as charcoal burning that were contributing to deforestation. At the beginning of each project, members are made to understand that in order to benefit from these projects, they need to be members of the project directly involved in the implementation. These are called direct beneficiaries and a register is kept to record attendance of members at each meeting. This also shows the level of participation of the people. However, community members were quick to point out that none of the projects, which include bee keeping and tree planting, have benefited the people since they were initiated in 2001. For the bee keeping project, community members have attributed this to the location of the project site which they feel is

unsuitable for bee keeping. Nonetheless, district officials insisted that location be maintained thus community members feel they were dictated to and their participation was not appreciated and a waste of time. The tree planting project has also not progressed because the wells that are supposed to be used to water the trees have not been completed due to the suspension of the funding. Therefore the trees that have been planted are currently drying up. As a result, most people said they have no choice but to go back into the forest reserve and continue with their previous activities such as charcoal burning which give them an immediate source of income for their survival. They said as much as they appreciate the negative impacts of deforestation, they have to survive in the interim while the projects are still unfolding.

Conflict resolution

Community members said there is no defined structure in place to deal with conflicts. However, whenever there are misunderstandings members try to get together at community meetings to iron out their differences. But most conflicts and offences, especially those involving financial matters, are taken to the District Environmental Facilitator at the CEMP district offices. Once these issues are resolved at the district level, community members are informed of the decisions made.

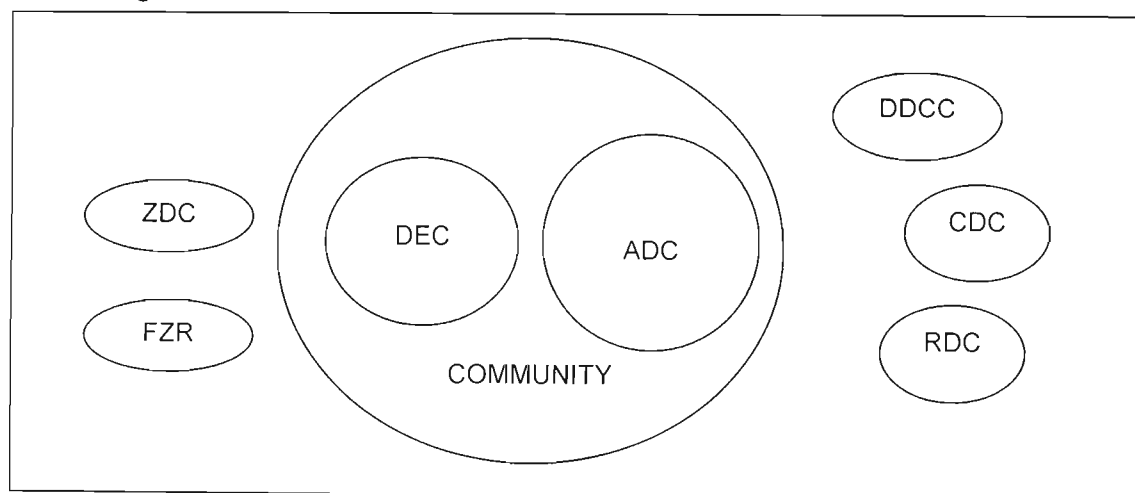
Establishment of community boundaries

Community boundaries were taken as the existing ones under the district constituency demarcations. Community members said they were informed about on how the boundaries were determined and agreed to the boundaries. In addition, members said they were encouraged to go into other community areas to participate in projects that they felt were of benefit to them.

Mama/Ngolo Communities

Institutional structures implementing the CEMP

Institutional Map of CEMP, as seen by a group of 32 community members of Mama/Ngolo



The community members explained the venn diagram as follows:

- **DDCC:** not well known amongst community members. Community members said there is no working relationship with the committee because officials do not visit the community and there is lack of communication.
- **DEC:** have a good working relationship with the community with visitations from officials once in a while. However, community members feel the committee still needs to improve the rate of visitation and communication with the community.
- **ADC:** well known amongst community members and have a good working relationship with the community. The committee members were elected by the community members. The committee coordinates community members and ensures that projects are running as smoothly as possible. However, committee members feel the delays in the disbursements of funds make their work difficult. This is mainly attributed to the loss in value of the funds by the time the money comes in as a result of the unstable value of the Kwacha. The value of quotations obtained previously for the projects are not the same thus resulting in the community not meeting their targets.
- **RDC:** newly formed body and was elected by the community members this year. However, the committee has not met with the community since its formation and therefore are not well known amongst the community members. Community members said they are not familiar with the committee's role and have not seen it in action, therefore, they are not involved with the community. However, it is hoped that the committee will eventually work with the community since their role is to coordinate activities amongst residents located in the committee's area of jurisdiction.
- **CDC:** newly formed body that was elected by community members but have not established a working relationship with the community since their formation. The committee has never met with the community and so members feel there is no working relationship between the community and the committee.
- **FZR and ZDC:** not known to the community. Community members said they have never heard of the two groups.

Decision making, formulation of rules and regulations regarding the use and management of natural resources under CEMP

Decisions on the projects that the community has embarked on under CEMP were made by community members and sent to the district for approval. These include bee keeping, fish farming, an orchard and tree planting. However, community members pointed out that even though they are able to choose their own projects, they are not involved in the budget making for the projects. They feel they would be in a better position to decide how much money should be set aside for the projects since they know their needs and are the direct beneficiaries. They also pointed out that the irregular flow of funds has resulted in targets not being met and the expected benefits from the projects not being realised on time. This has led some community being disappointed and reluctant to contribute and participate in the projects. Furthermore, community members

feel they should be given some incentives to continue with the projects that will sustain them if they are to keep away from the forest reserve and charcoal burning. Community members feel there is lack of concern and visitations to the community and project areas by district officials which has led to communication break-down. Subsequently, community members feel that they are not given a chance to participate in the decision-making process with district officials. In addition, members are of the opinion that the programme has been suspended due to financial mismanagement by district officials. They attribute this to the fact that the CEMP office is now under the district council whereas previously it was autonomous. At present the office is run by a council employee who has other council duties and is hardly in the office to attend to the community members whenever they go there to seek audience with him. Moreover, since funding was suspended district officials have not been visiting the community and so the community members assume that the officials are only interested in the funds and not the betterment of the community and protection of the forest resources. Community members also cited that the bee keeping project has not progressed well because the site for the project was forced on them even though they pointed out that it was not suitable. They said the district officials and facilitators informed that the financiers of the projects had already laid down conditions and procedures which just had to be followed, so the community had no choice.

The process of sharing benefits from the projects has not been established with the district officials and within the community itself. Tentatively, community members have agreed amongst themselves that people will be rewarded according to their attendance in implementing the various projects. Since the projects are still in the initial stages and no benefits have been forthcoming, members have not really been concerned with setting up a proper benefit sharing process. Although the community should have been harvesting honey from the bee keeping project and making some sales, there has been little progress since the location is not favourable for bee keeping. The fish farming project has also not produced any sales because although fish have been ready for harvesting and sale, they are stolen before community members are able to harvest. This has been attributed to a lack of security in the area. Community members said they expect the ADC to secure the area but the ADC members feel it is a community matter which requires all members to participate and control. The orchard and tree planting projects are also at a standstill because the wells that are supposed to be used in watering the trees have not been completed due to the suspension of funding. Therefore, at present the trees that have been planted are drying up. Consequently community members said they are losing interest in the projects since they are not seeing the benefits and therefore cannot be committed anymore. Most community members are of the opinion that they cannot survive on the projects so while the projects are being established, they have no choice to but to continue with the activities that give them a source of income such as charcoal burning.

Conflict resolution

There is no definite procedure which is followed but whenever disputes arise, a community meeting is called at which deliberations take place until resolution is reached. Where the community fails to resolve a dispute, the matter is taken to the District Environmental Facilitator who is normally the final authority.

Establishment of community boundaries

The boundaries that have been adopted are those established under the district constituencies. The community was informed about the process used to establish the boundaries and agreed to the boundaries.

GROUP DISCUSSIONS (Mushili/Shimaria and Mama/Ngolo community members – 82)

Problem Ranking**1) a) Environmental Problems – 5 years ago (in order of importance)**

Problems	Reasons
Water pollution	Pollution of rivers and streams from the emissions from the mines especially during the rainy season
Air pollution	High emissions from the mines directly into the air
Lack of security of tenure	People are settled on council land to which they have no title and are surrounded by the forest reserve and mine land
Lack of farming land near the community	The land in close proximity to the communities is degraded and of poor quality
Poor soils	Soils are affected by the air pollution from mines; poor farming methods

1) b) Environmental Problems – at present (in order of importance)

Problems	Reasons
Deforestation	Trees are being cut down indiscriminately for charcoal production and clearing land for farming as a source of livelihood due to lack of employment; forest fires caused by uncontrolled burning
Poor soils, which leads to low yields in farming	Soil fertility has been reduced due to soil erosion as a result of deforestation and poor farming methods as well as lack of crop rotation and leaving the land to lie fallow for some time

Problems	Reasons
Reduced rainfall	This is as a result of deforestation in the watershed and water catchment area thus leading to a reduction in rainfall amounts
Water pollution	Emissions from the mines pollute rivers and streams especially during the rainy season; waste from sewers from the urban areas finds its way into the rivers and streams causing contamination; and the use of poisonous substances by some people to kill fish during fishing
Air pollution	Emissions from the mines released directly into the air
Lack of security of tenure	Community members still do not have ownership of any land
Lack of farming land near the community	The land in close proximity to the communities is in a more degraded state and of poor quality
Reduction in wild life	The natural habitat provided by the forest has been destroyed and therefore most animals have left the area

1) c) Reasons for differences in problems experienced over the years

- In the past, people were occupied with other jobs which gave them a source of income particularly in the mines. But due to job redundancies in the mines as a result of the SAP, people have turned to the forest and are cutting down trees for charcoal production as a source of income. Currently, 95% of the community are unemployed.
- The use of poor farming methods due to ignorance over the past years has led to poor quality soils. In addition, extension officers from the Department of Agriculture do not advise people over good farming practises because most of them cultivate on illegal land. Deforestation is also contributing to soil erosion.
- An increase in the population of the area has led to increased demand for land for cultivation. This has pushed people further into the forest reserve area because the land in the settlement has either already been taken up or is too poor for farming.
- The council does not give community members a chance to apply for land because people are only invited for interviews once a year.

2) a) Problems encountered during the implementation of the CEMP (in order of importance)

- Availability of funds – disbursement was usually delayed
- Devaluation of funds due to delays in disbursing thus leading to shortfalls in meeting targets of projects
- Lack of man-power due to poor sensitisation and reluctance of community members to participate
- Lack of water for tree planting projects
- Unfaithful and uncommitted district leaders – they only visit the community when funds are available
- Lack of communication between the community and district officials, as such community members feel they are not well informed
- Lack of monitoring and evaluation of how projects are progressing by both national and district officials
- Attachment of CEMP office to the district council has resulted in the DEF not being available at all times to attend to community members' requirements and grievances
- Community not being involved in making the budgets for the projects
- The use of manual labour, which was not enough, to clear areas where projects were to be established
- Long periods to completion of projects before community members can benefit from them thus resulting in loss of interest to participate unless people can be given some incentives to sustain their livelihoods
- Lack of security around project areas thus leading to some community members stealing from the projects e.g fish from the fish farming product
- Unsuitable location of bee keeping projects which were imposed on the communities
- Lack of resources to deal with the red ants at the bee keeping project site and the insects attacking the fruit trees in the orchard

2) b) Possible reasons for problems arising during the implementation of the CEMP

- Dishonest district and national leadership
- Lack of civic awareness which makes it easy for people in the community to be lied to and cheated
- Weak local leadership that cannot really push the district and national leadership for the funds and other resources
- Lack of communication between programme initiators in Lusaka and the implementers at district level
- Lack of monitoring and visitations by district officials
- Delays in disbursement of funds from time of application and actual disbursement leads to community members becoming disinterested and thus not participating fully in the implementation of projects

- High levels of poverty in the community make it difficult for community members to wait for the projects to reach completion for them to receive benefits

3) Causes of deforestation (in order of importance)

- Poverty and lack of employment which causes people to cut down trees for charcoal production and making wood-crafts or carvings for sale in order to earn an income
- Ignorance on importance of forests
- Practising poor farming methods such as *chitemene* (shifting cultivation) which involves the cutting of trees to clear land for cultivation
- Poor enforcement of forestry laws
- The use of wood in building and roofing of temporal houses
- The use of wood as a source of household energy
- Traditional healers cutting down trees in order to get their medicines

Social Mapping

1) Sources of income

- Charcoal production
- Farming
- Brewing *munkoyo* (traditional beer)
- Collecting wild fruits and food for sale e.g *masuku* (traditional fruit), mushrooms and caterpillars
- Making clay pots and mouldings; wooden crafts and basket making
- Traditional bee keeping
- Trading at the market
- Part-time employment in urban areas, mainly in residential areas and shops
- Animal husbandry on a small scale

2) Sources of energy

- Firewood
- Charcoal
- Kerosene

3) Effect of sources of livelihoods on forest resources

- Community members are of the opinion that persistent use of poor farming methods, the continued encroachment into the forest reserve for cultivation, charcoal burning and over-harvesting of forest resources will adversely affect the forest reserve and deplete forest resources. This will result in forests not being able to retain water, drying up of rivers and streams in catchment areas, desertification, the habitat of animals being destroyed thus pushing them out of the forest and a reduction in the supply of NTFPs.

Preference Ranking

1) Alternative sources of income that do not contribute to deforestation (in order of importance)

Activity	Criteria for preference
Trading in the market	One gets to make some money everyday to take home; the amount of time spent is quite minimal i.e 8 – 10 hours per day; does not require hard labour
Poultry farming	It is quite profitable; does not require hard labour; time taken before one can benefit from sales is minimal i.e 2 – 3 months
Cultivating and selling farm produce	It is profitable; can grow different crops during different seasons; amount of time taken and labour required varies from crop to crop; also a source of food for households
Bee keeping	It can be quite profitable considering the price of honey in most shops in urban areas; requires quite a bit of labour; takes long time before one can benefit from sales; can work well with the Department of Forestry; honey can be used for medicinal purposes and wax can be used in making candles and soap
Wood crafting, basket making and clay moulding	It is quite profitable; benefits are realised within a short period; not labour intensive; but markets for products mainly found in urban areas which are distant from community
Fish farming	Can be profitable considering the price of fish in shops and markets in urban areas; requires a bit of labour; takes some time before benefits can be realised
Traditional beer brewing (<i>munkoyo</i>)	It is not very profitable; does not require a lot of labour; benefits a few days to be realised
Establishing orchards	This will be profitable since fruits sell quite well in the urban areas; fruits can also be used by community members for better health; but it takes a long time before benefits can be realised

2) Community members' perceptions of the values of forest resources

Value	Importance
Fertile soils	Forests prevent soil erosion and the areas have good soils for cultivation which lead to good yields that contribute to peoples' livelihoods
Construction material	Wood is used in constructing peoples' temporal houses
Source of food	Forest areas provide wild fruits, mushrooms, caterpillars and the like which can be consumed by the people and sold for sources of income
Source of energy	Wood is used as a source of household energy in the form of firewood and charcoal
Source of medicine	Leaves, roots and barks of medicinal trees and shrubs are used as a source medicine for community members and sale to urban areas
Catchment areas	Forests retain water and also protect rivers and streams from drying up and enable high rainfall
Habitat for animals	Forests provide a natural habitat for wild animals which are used as food by local people and can also be used for economic enhancement

3) Perceived benefits of the CEMP by community members (in order of importance)

- It has enabled community members to be more knowledgeable on the importance of the forests and forest resources, the environment as a whole and sustainable utilisation of resources
- It has enabled community members acquire project management, conflict resolution and planning skills
- It has enabled some community members acquire financial management and leadership skills
- It has brought community members closer together, cooperating and co-existing in a better way
- It has enabled communities build a relationship with district officials although this still needs to be improved on

Historical Mapping

1) Differences in time taken to collect firewood 5 years ago and at present

- It took a shorter time to collect firewood 5 years ago, about 30 minutes to 1 hour

- It takes a longer time to collect firewood today, about 3 to 5 hours. Some people go as far as the boundary with Chililabombwe district and the Democratic Republic of Congo.

2) Reasons for differences

- The difference in time taken to collect firewood is as a result of deforestation. This is because the forest has now receded from the fringes of the community settlement, since too many trees have been cut, to distances further from the community

3) Perceived effects of loss of forests over past 5 years

- Reduced amount of rainfall received in the area
- Community members have to walk long distances to collect wild fruits and food such as mushrooms, which are not as abundant as before
- Less timber available to community members
- Small animals that communities caught for food are rarely seen as they have moved to areas where the forest is more intact

4) Attitude and behaviour change towards importance of forest resources since inception of CEMP

- Community members have a better understanding of the importance of forest resources and their knowledge has been improved in a positive manner. They understand the need to conserve forest resources and are willing to change the current activities that are affecting the forests to those that will protect and conserve the forests. However, people feel they have no choice but to continue with their current activities such as charcoal burning and cultivating in the forest reserve since they have not been provided with alternative sources of income that can sustain them at present.

APPENDIX 4

PROJECTS BEING IMPLEMENTED IN MAMA/NGOLO, LUANSOBE

Project Name	Project Status	Institutions ³ Involved
Orchard and tree planting, includes the construction of 1 water well	<ul style="list-style-type: none"> • Citrus fruit and tree seedlings purchased and planted after release of first allocation of funds between September and October 2002. • Construction of 1 well also commenced simultaneously for purposes of watering trees. • At the time of research, the well was incomplete due to suspension of funding, still required purchase and installation of hand pump. • As a result, trees planted withering and dying due to lack of water supply. 	Department of Forestry, DEC, ADC, PMT
Fish farming	<ul style="list-style-type: none"> • Constructed 1 fish pond out of the targeted 4 and stocked it with fish after receiving first allocation of funds in the last quarter of 2002. • The remaining 3 ponds have not been completed due to suspension of funding. 	Department of Health, DEC, ADC, PMT
Bee keeping	<ul style="list-style-type: none"> • Constructed apiary and 25 beehives after receiving first allocation of funds in the last quarter of 2002. Baited swarm boxes. Swarm boxes attacked by red ants resulting in bees leaving site. At the time of research, a few bees had started returning to the bee hives. 	Department of Agriculture, DEC, ADC, PMT

³ All projects are being jointly funded by the World Bank and the Zambian Government