

**AN INVESTIGATION OF THE PRACTICES EMPLOYED BY AN ENVIRONMENTAL
COMMUNITY-BASED ORGANIZATION TO SUCCESSFULLY SUSTAIN ITS
SCHOOL BASED AND COMMUNITY BASED PROJECTS**

(A CASE STUDY)

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ABSTRACT

Community-based organizations (CBOs) play a crucial role in sustainable development and hence it is important that they are promoted, guided and supported by state agencies and the private sector. The South African government encourages communities to establish co-operatives as a tool or strategy to address local social issues and risks and act accordingly.

The purpose of this case study was to determine what aspects of the establishment and operation of a successful community-based environmental organization are producing sustained school and community projects. The study set out to investigate and audit the activities of a successful environmental CBO so as to determine how it has successfully sustained its school and community environmental projects. The reason for this investigation was to inform other CBOs and the state environmental agencies that support them on how to sustain their environmental activities in community and school contexts.

The investigation was designed as an interpretive case study, which used document analysis, semi-structured interviews and observations to gather data. The gathered data was analyzed through inductive analysis to interpret and audit reported activities. Analytical memos were used to represent key themes in relation to the successful operations of the organization. Through auditing and reporting the activities in the analytical memos, analytical statements were developed. Those statements guided the discussion and informed the study's findings and recommendations.

After investigating this CBO, it was concluded that, their success is a result of the establishment of a networking forum with different stakeholders and parties, community involvement in different projects, partnerships with local schools to develop and expand their curriculum practice, CBO networking locally and internationally and finally, their participation in annual and continuous environmental competitions/projects/programs. The insights gained and lessons learned will be used to advice and support community based co-operatives in environmental learning activities in school and community contexts as part of my ongoing work.

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DEDICATION

This thesis is dedicated to my entire Khoza and Hlophe family. I count myself blessed to have such a loving and supportive family.

Ngin'thandani.....

DECLARATION

I, the undersigned, hereby certify that this work has not been submitted for any other degree, in any other institution. This is my own original work.

Nomalanga Nokuthula Hlophe

DECEMBER 2015
Date of submission

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LIST OF ABBREVIATIONS AND ACRONYMS

CBO: Community-Based Organization

CER: Centre for Environmental Rights

CoP: Community of Practice

DAEA: Department of Environmental Affairs

DWAF: Department of Water Affairs and Forestry

GEF: Global Environmental Facility

HCGP: Healthy Communities Grant Program

INKNEDP: Inanda Ntuzuma KwaMashu National Economic Development Plan

NEC: Ntuzuma Environmental Co-operative

UNDP: United Nations Development Programme

USADF: United States African Development Foundation

WWF: World Wildlife Foundation

CHAPTER 1: INTRODUCTION

ORIENTATION AND GENERAL BACKGROUND OF THE STUDY

1.1 INTRODUCTION

This study investigated and reviewed the strategies employed by an environmental community-based organization (CBO) in order to determine how it has successfully sustained its school and community projects.

The investigator/researcher is a Senior Environmental Officer with the KwaZulu-Natal Department of Agriculture and Environmental Affairs. My duties include working with CBOs to promote, establish and implement environmental education activities, programs and projects.

The findings of this study will benefit other CBOs, government departments, Non-Governmental Organizations (NGOs), Faith-Based Organizations and Civil Society Organizations that organize environmental education activities, programs and projects, through suggesting strategies that can contribute to the sustainability of community-based environmental projects.

This chapter outlines the aim of the study and the background to the research project, introduces Ntuzuma Environmental Co-operative (NEC) and explores how it has sustained its environmental education projects. The chapter also presents a brief overview of the context of the study and the structure of the dissertation.

1.2 AIM OF THE STUDY

Research title:

An investigation of the practices employed by an environmental community-based organization to successfully sustain its school based and community based projects.

Research Question:

What aspects of the establishment and operation of NEC as a successful community based environmental organization are producing environmental projects that are effective and sustainable?

Research Objectives:

1. To determine how NEC's environmental education activities and projects have been funded, developed, supported and monitored.

2. To identify the successful operational strategies adopted by NEC so as to suggest strategies that can be utilized by other CBOs in order to strengthen their environmental projects.

Through investigating the research question and pursuing the research goals, the researcher was able to review activities and identify practices and strategies that have contributed to the success and sustainability of the environmental CBO under study.

1.3 SELECTION OF COMMUNITY-BASED ORGANIZATION: NTUZUMA ENVIRONMENTAL CO-OPERATIVE

As noted above, the researcher was interested in finding out how and why some CBOs were able to continuously organize and conduct environmental projects, while most other CBOs failed to do so. The researcher identified a successful CBO, which had managed to sustain its environmental projects for eight years prior to the study. This CBO was then investigated in order to identify practices that contribute to the success and sustainability of environmental school and community projects. This CBO is known as Ntuzuma Environmental Co-operative (NEC).

1.3.1 Background of NEC:

NEC is an environmental CBO that conducts school and community environmental projects at Ntuzuma Township, in Durban in the province of KwaZulu-Natal. This township is characterized by environmental degradation as a result of heavy infestation of invasive alien plants, poor waste management and a lack of environmental awareness. It is against this background that in 2004 NEC was established as a community initiative to clean-up the environment and conduct environmental awareness programs. Crime prevention through environmental design was another motivating factor as NEC assists with the clearing of overgrown bushy passages that are used for criminal activities. NEC is a women-driven initiative that plays a positive role in empowering the youth through awareness programs in partnership with schools, communities and various national, provincial and municipal government departments.

1.3.2 The NEC Constitution (2005, page 4) sets the following organizational objectives:

- Promote a cleaner and sustainable natural environment in the Ntuzuma Township area
- Partner with environmental line function departments for awareness campaigns related to the environmental calendar
- Removal of alien plants and replacing them with indigenous plants and trees

- Train community members on waste management and recycling methods
- Promote the organic farming method and its benefits to the environment

1.3.3 NEC Members:

This environmental co-operative has 29 members, 97% of whom are female. The youth are also members.

1.3.4 NEC Achievements:

- Awarded a two-year contract (2011 & 2012) as a Working for Water agent to remove alien invasive plants and rehabilitate local streams. All members received a stipend of R73 per day.
- Awarded a contract with the municipality to remove alien plants and plant indigenous trees. This created further employment opportunities for community members.
- Provincial 1st prize winner of the Women in Environment Competition: Education and Awareness Category. A prize of R30 000 was received from National Department of Environmental Affairs.
- Nominee for eThekweni Mayoral Awards: Biodiversity Category. Received a certificate of recognition in the development category from the Mayor of eThekweni Municipality.
- Indigenous Nursery sponsored by Indalo Yethu, which is an agent of the South African Department of Environmental Affairs.
- One member attended the NEPAD and Globalization Conference, held in Tanzania, to learn about Tanzanian CBOs. The delegate was sponsored by eThekweni Municipality.
- Received Black Economic Empowerment Certificate.
- As a community-driven initiative, the NEC has no direct continuous financial support and in most cases the work is conducted on a voluntary basis in the interests of the environment.
- Partnerships have been established with the Urban Renewable Program, eThekweni Parks and Recreation, the provincial Department of Agriculture, Environmental Affairs and Rural Development, the Department of Water Affairs and Forestry, Umgeni Water, ESKOM, Working for Water, other local CBOs, NGOs, and business.
- The co-operative has adopted six local schools, namely, Bonisanani Primary, Ntuzuma Primary, Dalmeny Primary, Dumehlezi High, Halalisa Primary and Muziwabantu Primary. Three of these schools are now eco-schools with green flag status.
- Establishment of vegetable gardens in six local schools, to alleviate poverty.
- Establishment of community and family vegetable gardens alongside cleaned streams, to alleviate poverty.
- Removing bushes of alien invasive plants which were used by criminals as a hiding place.

- Providing free environmental accredited and non-accredited training programs to the local community.
- Financial support has been secured for a limited number of projects from national and provincial government departments, environmental agencies and business.

These achievements bear testimony to the success of this CBO and are the reasons why it was selected for this investigation.

1.3.5 Turning to the scope of the CBO's environmental activities, NEC's Constitution (2005, p.3) notes that:

Although this co-operative only conducts projects at Ntuzuma Township, we adopted the legacy of "Think Globally, and Act Locally". All our environmental activities are in line with environmental global issues and relate to South African Environmental Legislation/s. Through our projects, we are responsible for ensuring that Section 24 of the South African Constitution is being addressed, whereby "All South Africans have the right to live in a clean and healthy environment".

Members commemorate international, national and provincial environmental calendar days with the community and schools, e.g., World Environmental Week, World Arbor Week, National Clean up Week, and National Weed Buster Week. National and international environmental legislation and interventions are considered and implemented in their environmental school and community projects.

1.4 NTUZUMA ENVIRONMENTAL CO-OPERATIVE CASE STUDY SITE:

1.4.1 SPATIAL INFORMATION:

According to the Inanda Ntuzuma KwaMashu Nodal Economic Development Profile (INKNEDP), Ntuzuma Township is a predominantly residential area situated 20km north-west of the eThekweni (Durban) city center in KwaZulu-Natal, South Africa. As a residential area with low levels of internal economic activity, its growth prospects are strongly linked to external areas (chiefly Durban). Ntuzuma was built in the 1970s as a planned African township as part of the apartheid dispensation. There were high levels of political tension and violence in the 1980s, sparked by issues surrounding service levels and tenure arrangements. Ntuzuma comprises mainly of formal housing.

1.4.2 CLIMATE:

Ntuzuma normally receives about 750 mm of rain per year, with most rainfall occurring during midsummer. It receives its lowest rainfall (13mm) in July and highest (150mm) in January. The average midday temperatures for Ntuzuma range from 22 degrees Celsius in

July to 27.3 degree Celsius in February. The region is coldest in July when the mercury drops to an average of 9.3 degrees Celsius at night (INKNEDP).

1.4.3 TRANSPORTATION:

This township lies close to Durban's Central Business District (CBD), as well as the growing suburban commercial and industrial areas of Springfield, Mhlanga and La Lucia. Seventy per cent of residents commute to the city using rail transport, while the remainder uses minibus taxis and buses (INKNEDP).

1.4.4 TERRAIN AND NATURAL RESOURCES:

As noted earlier, Ntuzuma is primarily a residential area. It is characterized by a shortage of land with hilly terrain covered by dense housing. Housing in the area is largely formal (52%) while informal housing accounts for 43% and traditional housing for 5%. While land is generally scarce in the area, some tracts of undeveloped land still exist.

1.4.5 SOCIO-ECONOMIC INFORMATION:

Ntuzuma's population stands at approximately 580 000 (2006 estimate). The population density is 6325 persons per km square. Over 65% of the population is younger than 29. Ninety-five per cent speaks isiZulu as a first language. The limited level of English competence inhibits opportunities for employment within eThekweni's formal economy.

1.4.6 INFRASTRUCTURE:

There is no tertiary institution in this township. Twenty-six per cent of the residents have no electricity, while 30% lack piped water, 2% are without waste removal services and 67% do not have a fixed line telephone.

1.4.7 EMPLOYMENT AND INCOME:

About 40% of Ntuzuma's population are unemployed with a further third (33%) recorded as being not economically active. Some 75% of all households earn below R9 600 per annum. Ninety-three per cent of those that are employed are salaried employees. The poverty rate is directly related to the low level of employment of only 27%.

1.4.8 EDUCATION:

Thirty-four per cent of the residents of Ntuzuma have never attended school, while 22% have attained Grade 12 level education. Only 4% of those who attained Grade 12 level education have gone on to acquire a tertiary qualification.

1.5 OVERVIEW OF THE DISSERTATION

This thesis consists of six chapters, structured as follows:

Chapter 1 introduces the researcher, research questions, and research goals and NEC. The research site is discussed by providing a contextual profile.

Chapter 2 reviews the literature relevant to this study. It also discusses the conceptual and theoretical frameworks that informed the study. Relevant national and international policies and legislation are highlighted.

Chapter 3 describes the methodology employed by the study. It discusses the qualitative research procedure employed in relation to document analysis, semi-structured interviews and observation. The chapter presents an overview of the case study design used in this study and discusses ethical aspects of the research process. It also discusses the validity and reliability measures applied.

Chapter 4 presents and discusses the findings based on the data collected from the documents analyzed, the semi-structured interviews and observation. The purpose was to identify the strategies adopted by this CBO. The themes and sub-themes that emerged in the data were identified. The themes included partnerships and networking, community involvement, learning interactions and project management practices, while the sub-themes were planning, monitoring and evaluation, training and financial management practices. These themes revealed some of the practices that have contributed to the successful operation and expansion of NEC.

Chapter 5 discusses the study's findings with reference to the literature reviewed. It thus provides a more in-depth analysis of the findings presented in Chapter 4. The discussion is structured according to a series of analytical statements that address the research question.

Chapter 6 provides a summary of the study and makes recommendations and suggestions. It also provides a reflective review of the entire study and comments on lessons learned from the study, its contribution and its limitations. While the study does not claim to be able to generalize the results, it may offer useful insights for similar environmental CBOs.

1.6 CONCLUSION

This chapter outlined the research title, research question and research goals. The study was placed in context and reasons for the selection of NEC were advanced.

The following chapter presents a review of national and international literature relevant to this study. It further discusses the broader context of the study and the conceptual and theoretical frameworks that informed it.

CHAPTER 2: LITERATURE REVIEW

2.1 Introduction

This chapter reviews the literature of particular relevance to this study in order to determine how CBOs manage themselves and successfully conduct community projects. Community-Based Organizations play a very crucial role in sustainable development; hence it is important to determine the strategies that are being implemented by successful CBOs.

2.2 Bieberich (2010, p. 7) described CBOs as “formal groups that work within a community, delineated both spatially and by shared interest and purpose, for the area’s social , political and economic development”. Bieberich adds that these organizations are comparable across type because they all share the goal of community development and must work within the political process to achieve this. They thus work within a specific local area, usually one neighborhood, to improve that community through policy change or the attainment of some public benefit from a powerful figure (usually the government). Such development can be physical, economic, political or social and many groups work for the improvement of all these aspects. Although such groups work to inspire change at the grassroots, they work towards a shared goal in different ways. In this study, I explore how different strategies affect the sustainability of environmental projects, using one CBO as a case study.

According to Chechetto-Salles and Geyer (2006), CBOs play an important and relevant role in providing services at local level. They work in a variety of different fields, such as education, health, the rights of the disabled, gender issues, etc. They add that CBOs depend heavily on voluntary contributions for labor, and material and financial support. Finally, Chechetto-Salles and Geyer (2006) note that CBOs have certain common characteristics such as being non-profit organizations that rely on voluntary contributions, act at the local level and are service-oriented.

The above definitions helped me to locate my work with CBOs, enabling me to conclude that NEC is a CBO because it is a voluntary, non-profitable organization that provides educational services at local level in its quest to meet the economic and social needs of the local community.

The South African government encourages communities to establish co-operatives as a tool or strategy to address local social issues and risks (Co-operatives Act 14 of 2005). This is one way to empower previously disadvantaged groups, since profit and benefit is shared among them. Youth co-operatives are encouraged as there are limited job opportunities for the younger generation. Women co-operatives receive much support due to women's disadvantaged position in society. Financial support/salaries/wages is never guaranteed in co-operatives; hence all start with volunteers. Members are driven by a common goal, which in the case of NEC is to address common local, and community environmental issues and risks through the implementation of environmental projects and programs.

In my work with CBOs, one of my responsibilities is the provision of training support to emerging co-operatives and other community structures.

2.3 Training and CBOs

CBOs are playing an increasingly important role in local development and poverty reduction, especially in decentralized contexts. In order to provide demand-responsive services to their members and to manage their organization well, many CBOs are interested in continuously enhancing their capacities and skills so as to assume key development responsibilities and to achieve recognition and vertical integration into existing institutional settings. While this has not happened in the case of most of the CBOs that have been supported in my work, NEC stands out as a success story where training has been acquired and the organization has come to function effectively to support local learning.

In the Arab countries, the Community-Based Regional Development Project, co-funded by the United Nations Development Programme (UNDP) and the Government of Yemen, developed a three-year training program and a monitoring process. This training has consolidated practical training experiences into a series of practical manuals to facilitate local capacity-building. The materials use local images, thus fitting with the socio-cultural context. The training manual also

includes documents for the establishment and management of CBOs, their promotion and marketing and the process of applying for loan funding.

This is a useful approach to training, which can result in CBOs managing their organization better, developing skills and gaining recognition. All of this can be achieved through a well-planned contextualized training program, where the local culture, language, economy, values and norms are considered. It is important to note that, this manual includes training on loan applications, budgeting and proper management of funds.

In China, a unique training program, the Institutional Capacity Building Program was launched by a non-governmental development organization, called the Badi Foundation. This foundation is dedicated to facilitating the establishment of CBOs, partnering with them to design and implement education and training programs and building their capacity to collaborate with government in order to promote development. The curriculum includes constructing a conceptual framework, reading society and forming a vision, translating a vision into a program that will promote a learning mode, developing and managing financial resources and forming and maintaining relationships with government and civil society.

This program assists CBOs to define their purpose and vision and design and implement action plans in line with their understanding of the community. The foundation then builds the capacity of collaborating contributors. The Badi Foundation currently assist 26 CBOs, with over 9 000 active programs. These CBOs are actively involved in designing the foundation's education and training programs. Through this process the foundation learns from the CBOs and vice versa.

The Institutional Capacity Building Program also encourages CBOs to formulate a vision that relates to the entire community. The foundation shares its financial experiences with newly-established CBOs and trains them how to manage their finances.

Thus, the Badi Foundations' program is more than just educating and training other CBOs; it involves sharing information between a well-established non-governmental development organization and new CBOs, thus capacitating and equipping them for success.

Another NGO, the World Wildlife Foundation (WWF) is training and educating CBOs in Madagascar. It focuses on environmental CBOs and is capacitating them in order to strengthen

the decentralized management of natural resources and to enable civil society to play a role in shaping natural resources management policies at local, regional and national level.

A training module, kit and manual on advocacy processes were developed for WWF staff in order to help them initiate advocacy on key themes relevant to their work. In order to equip organizers and field agents with knowledge and tools to facilitate their support for CBOs, eight training modules were developed and implemented. These modules emphasize the need to develop and train staff that will train and support CBOs. This leads to staff personal development. It also promotes common understanding among the staff; for example, as a result of two reflective workshops on “Capacity Development” organized for WWF staff, a common definition of “Capacity Development” was agreed on.

The WWF notes

that the CBOs involved in the pilot project have significantly improved their organizational capacity while some have developed their vision, mission and work plans and others have improved their internal organization, management of activities and partnerships.

In summary, there is consensus in the literature that CBOs require well-structured training. However, Chechetto-Salles and Geyer (2006) added that it is important that CBOs adopt training and education policies in order to ensure lifelong education and training of personnel and volunteers. This will guarantee that workers or volunteers are able to contribute to the organization’s objectives. It is also necessary to strike a balance between training to get things going and the learning that comes through practice to build a strong organization. Despite being given training, many CBOs have failed. On the other hand, having received start-up training, NEC has thrived, with external agents like me simply supporting them to find their own way.

2.4 The role of external agents

This section reviews the literature on the role of other environmental stakeholders when CBOs design and implement school and community based environmental projects.

2.4.1 How networking contributes to sustaining projects

According to Eade (2007), the term networking covers “the informal linking and communication that goes on between people and organizations, at a local, national or international level”(p. 147). In a capacity-building context, there are two main reasons to promote networks. The first is to share new ideas and information in order to learn from others with similar interests. Secondly, networks pool participants’ experience and energy in order to enhance their collective and individual impact.

Participation in international networks enables people to establish links between the global level and what is going on in their own lives. Networks help to facilitate practical action by citizens and social movements in the form of putting pressure on governments to “act” which “provides the best hope of securing rights and ending poverty”(Watkins, 1995,p. 315).

Not all networks result in tangible gains for their members or lead to practical action or change. However belonging to a network, or making informal links with other like-minded people, can significantly strengthen the position of those who are inspired and enabled to work for change. Whether this happens or not largely depends on who belongs to a network, and how they use it. People may make creative use of what a network offers, in ways that were not originally intended.

A network may serve its members in different ways, each of them equally valid. For instance, during the 1980s, several international NGOs in Central America used their membership of an NGO umbrella group to convene high-level meetings and engage support for regional policy initiatives that none could have achieved individually. Belonging to an international network enabled its members to maximize their impact within their own spheres of activity (Eade, 2007, p. 147).

For CBOs to be successful there is a need for networking. Networking can occur at local, national or international level. It introduces new ideas, different skills and expertise, sharing of information, learning from one another and support, including financial support. CBOs are also encouraged to be part of other community forums, so as not to work in isolation. For example, CBOs should attend local community meetings, parent meetings at schools, and meetings of faith based organizations. Monroe et al. (2009) note that, a community forum is designed to provide

information, enable participants to ask questions of experts and create an open atmosphere to discuss an issue that requires relatively little investment from the participants (pp. 171-172).

Networking has taken many forms in my CBO work and an important feature has been how casual interchanges have often developed into more formal partnership arrangements that have given focus to and strengthened CBO activities.

2.4.2 How partnerships contribute to sustaining projects

According to Cowan et al., cited by Gray and Larson (2008), a partnership is a means of transforming contractual relationships into a cohesive, co-operative project team with a single set of goals and established procedures to resolve disputes in a timely manner. It is more than a set of goals and procedures; rather, it is a state of mind and a philosophy on how to conduct business with other organizations. Partnerships represent commitment from all the participants working on a project to respect, trust and collaborate with each other. Cowan et al. add that partnerships reduce administration costs, ensure more efficient utilization of resources and promote improved communication, innovation and performance.

In some cases, partnerships fail because of a lack of a formal evaluation procedures or a failure to adequately address cultural differences among the contributing organizations in terms of management style, terminology and different procedures, as well as the failure to promote continuous improvement (Ibid).

CBOs are encouraged to establish partnerships that introduce new ideas, experiences and skills and allow for collective decisions that promote ownership. Even partnerships with local schools can benefit a CBO and the community at large. It is very important that there is a memorandum of understanding between partners. Mangaung, cited by Ansari and Phillips (2004, p. 35) notes that, "A partnership is a process in which the stakeholders invest themselves in terms of ideas, experiences and skills to collectively bear on the problem through mechanisms for joint decision making and action".

According to the *Oxford South African Concise Dictionary* (2010, p.1156), the terms stakeholder refers "to a person with an interest or concern with something". Stakeholder participation is seen

as the key to stimulate an effective partnership (Steenbergen and Ansari, as quoted by Ansari and Phillips, 2004, p. 35). The benefits of participating in community partnerships include getting help from other organizations, making the community a better place to live, moving towards the achievement of organizational goals and obtaining funding.

Barriers to participation in community partnerships include a lack of skills and the fact that the time expended on partnerships may not be worth it if the organization does not get sufficient public recognition for its work in the partnership.

Ansari and Phillips (2004) concluded that involvement, commitment and a sense of ownership were invariably associated with positive perceptions of the benefits of partnerships, often with low costs. However, with high levels of participation, the increased costs of involvement might impact members' satisfaction levels.

Monroe (1999) states that, stakeholders are people who care about a program, are willing to commit to it, and are best placed to offer input. Environmental CBO stakeholders might include teachers, agency supervisors, community leaders, landowners, extension workers, parents and curriculum developers.

It is important that CBOs identify the stakeholders in all their environmental programs and projects. Successful programs bring a coalition of stakeholders together to design, implement and evaluate a program that meets their needs (Monroe, 1999). While it would be impractical to consult a large number of stakeholders on every decision, their input and participation is essential in the beginning stages (Monroe, 1999). This offers a variety of perspectives on the program, thereby shaping its focus and audience. Stakeholder participation also helps to ensure early buy-in into the process, so that as the program develops, it is more likely to be used. Another advantage of involving stakeholders is that it reinforces the image of community partnership and/or ownership and interest in the program. These are important factors during the evaluation phases of a program, as they can offer input on what information to gather, how to gather it and ultimately how to share it with relevant audiences.

According to Monroe (1999), while the stakeholder approach has advantages, it is also important to note that, multiple stakeholders often result in multiple interests, values and uses, and these can lead to conflict. Therefore it is advisable that stakeholders understand their roles and

responsibilities in the program, and these should be clearly defined and mandated. Furthermore, training and discussion is needed to help avoid conflict.

Chechetto-Salles and Geyer (2006) also recognize that conflict can occur among stakeholders, and suggest that such conflict should be managed in order to prevent it from escalating and to improve co-operation and motivate and build trust and consensus. Conflict can be managed in different ways such as negotiations, joint problem-solving, facilitation, mediation and arbitration.

The state was one of the prime movers in supporting the establishment of CBOs and encouraging the necessary partnerships for community structures to thrive. Although many started well, the role of the state was often unclear.

2.4.3 The role of the state

Ntuzuma Environmental Co-operative works very closely with the local municipality. The Area Based Manager supports this CBO in all their environmental education activities, for example with equipment when rehabilitating local streams, seeds and seedlings for schools and community gardens and financial support. Williams (2006, p. 197) notes that the Municipal Structures Act, chapter 4 (g) and (h) encourages CBOs to form partnerships with the municipality.

The democratic South African government encourages communities to initiate development which leads to a healthy environment that is not harmful (S.A Constitution sec 24). The government also promotes community based environmental education programs as one way of empowering the previously disadvantaged. The South African Constitution provides for community participation in the construction, implementation and evaluation of an Integrated Development Plan at local level (Williams, 2006, p.197). Public policies have been formulated to create “people centered development” predicated on democratic practices such as equity, transparency, accountability and respect for the rights of citizens, especially the poor, homeless and the destitute (RSA, 1995,1999,2000). Section 152(e) of the Constitution states that, “the objective of local government is to encourage the involvement of communities and community

organizations in the matters of local government” (RSA, 1996 (a), cited by Williams, 2006, p. 200).

Another way of sustaining CBOs is to work with local schools. School based activities should promote environmental awareness that relates to local issues. Working with educators, CBOs should raise awareness, provide information and enable learners to participate in discussions on local environmental issues and seek innovative solutions.

The Ethiopian Wildlife and Natural History Society consult with some local schools and community environmental clubs. Annual plans are developed according to the needs of the clubs. Technical, financial and material support is provided. The clubs carry out activities and compile a report. Following an evaluation, awards are given to outstanding clubs. The club activities include environmental education workshops, capacity building programs, farmers’ conservation initiatives, setting up plant nurseries in schools and communities, and school and community based environmental education magazines, newsletters, pamphlets, leaflets and brochures, among others. This annual program has strengthened the partnership.

According to Mansuri and Rao (2004), “the state is another strategic actor in this context. Beneficiary communities are often too poor and remain in need of government support for inputs, maintenance investment and trained staff to sustain projects”(p 25). Thus, the need for a responsive state apparatus may increase when community participation projects are implemented. However, some states may manipulate project allocations to satisfy political ends (Schady, 2000), or may try to use community participation programs to shift certain costs to community groups. Some studies claim that centralized bureaucracies tend to inhibit project effectiveness, although the evidence is generally weak. Finsterbusch and Van Wincklin’s (1989) review of community-managed USAID projects notes that, for projects to be effective, the organizations that implement them need to be decentralized and non-authoritarian. In some cases, the state may have to support broad based redistribution of power for community projects to be really successful. This suggests that CBO projects are part of the shift towards a broad based participatory and decentralized system of governance. Several writers have pointed to the potential for conflict between local political interests and CBOs. Thomas-Slayter (1994) notes that as CBOs grow stronger, they often pose a challenge to local political interests, leading to competitive relations between the state and themselves that could result in the withdrawal of

state support. Das Gupta et al. (2000) found that community development efforts can be fragile in such circumstances.

Mansuri and Rao (2004) conclude that, the key to participation is to create forms of downward accountability and simultaneously to maintain close links between the higher levels of government and CBOs. In the absence of state facilitation, participation can result in a closed village economy, which limits the possibility of improved public action.

According to Bieberich (2010), organizations that are co-opted by the government run the danger of becoming irrelevant to the community because they stop listening to its needs and priorities. The government may then no longer listen to these organizations since they pose no threat and have lost their connection to the community in which they were originally based. Groups that work entirely outside the government in a purely oppositional stance can also be ineffective if they do not garner sufficient support to gain government's attention or if they are regarded as being too dangerous or radical. In reality, however, most CBOs are not completely oppositional or militarily aggressive, and most insider groups have not been fully co-opted by government. If CBOs establish credibility through a working, reciprocal relationship with the government, whilst staying rooted in community needs, it is likely that they will gain benefits from the government as well as the community. This intermediate victory will sustain and expand the power of the organization.

Whereas the state needed to develop CBOs to support local learning and change it was often unclear how the local community fitted in and formed the necessary CBO structures to source funding for projects for the common good that promoted positive environmental change

2.5 The role of the community

According to Mansuri and Rao (2009), the cornerstone of CBOs' initiatives is the active involvement of the members of a defined community in aspects of project design and implementation. They add that, for community-directed development to be sustained, democratic characteristics and traditions must be present. This is not something that will be given to the

community by politicians, but is rather something that must be established and used by the community.

There is potential for success if CBOs involve local community members in planning, decision-taking and action. This enhances ownership, support, and unity. Local residents value participation because it enhances their existing sense of community and their life chances and expresses their democratic right to have a meaningful say in decisions that affect them (Clunies-Ross, cited in Butterworth and Fisher, 2000, p. 2).

According to Japal, cited in Williams (2006, p.197) “community participation is the direct involvement or engagement of ordinary people in the affairs of planning, governance and overall development programmes at local or grassroots level, it has also become an integral part of democratic practice in recent years”. Community participation is often driven by specific socio-economic goals that seek to ensure a “better life for all” especially for those who were historically marginalized during the successive colonial-cum-apartheid regimes in South Africa.

Clover, cited in Butterworth and Fisher (2000, p.4), states that “environmental education should not focus only on children in formal educational settings since this does not match the need for deeper, political level of environmental action. Such deeper, political levels of environmental action can only be brought by the collective involvement of adults”.

Clover, quoted by Butterworth and Fisher (2000, p. 5) adds that, “a systematic approach to environmental education would concentrate not solely on children’s educational needs, but also would acknowledge the more direct connection between environmental education and changes to social policy through the empowerment efforts of adults of voting age”. It is therefore important that CBOs also involve the community in their environmental projects.

Mansuri and Rao (2004) suggest that stimulating community participation may require more than educating the community about their common interests or promoting communal values. It may also require helping them to understand the collective benefits of participation.

The relationship between CBOs and the community helps to bring them together to solve common problems. This creates social bonds within the community, thereby strengthening community based projects and personal relations.

2.6 Organizational project management skills in CBOs

It is important for CBOs that are involved in environmental projects to capacitate their members with project management skills. This section explores the role of some project management skills in enhancing the capacity of CBOs to run and administer sustainable environmental projects. For the purpose of this study, project management skills are limited to planning, monitoring, evaluation and financial skills.

2.6.1 Project

According to Burke(1997, p. 2), a project is “a temporary endeavour undertaken to create a unique product or service. Temporary means that every project has a definite end. Unique means that the product or service is different in some distinguishing way from all similar products or services”.

“A project is a complex, nonroutine, one-time effort limited by time, budget, resources, and performance specifications designed to meet customer needs”(Gray and Larson, 2008, p.7).

Organizations may lack experience in project management, or in handling large budgets, or managing rapid growth. They may need support in the form of office equipment and stipends for aid workers or volunteers (Eade, 2007). Chechetto-Salles and Geyer (2006) concur and note that, wise management of the organization can contribute significantly to ensuring the effectiveness of the work that it does. They add that the principles of management have been learnt and established over time and can be applied to all organizations, though there might be some circumstances that are specific to certain organizations. Chechetto-Salles and Geyer (2006)encourage all organizations to consider the goal of the organization. If organizations are clear about their goals, all management strategies, techniques and processes work together.

Assistance with training, financial skills and other planning, project design and organizational management skills may also be required. The aim should be to build on existing skills rather than displacing them with skills and services brought in from outside.

According to Goodhand and Chamberlain (1996), who worked with CBOs in Afghanistan, capacity building should not be limited to “skilling up” organizations or providing a technical fix. Rather, it implies a “wider dialogue based on shared values and ethics” (p. 206).

However modest an organization's scope and objectives, its work must be planned and properly resourced, and lessons must be learnt from its successes and setbacks. If these skills are firmly rooted within an organization, they will make a sustained contribution. If organizations adopt rigid approaches to planning, monitoring and evaluation, or regard these as simply technical procedures, it is likely that they will become a burden rather than a tool for self-reliance.

2.6.2 Planning

The planning process of any project not only establishes what is to be done, but paves the way to "make it happen". Planning asks questions, encourages participation, creates awareness, prompts action, solves problems, and formalizes decisions based on consensus (Burke, 1997).

Planning is closely linked to self-appraisal, and provides a framework within which an organization and its constituency can affirm what it wants to do, and how it will do it. Monitoring and evaluation are feedback mechanisms to ensure that problems are identified and dealt with, and that lessons can be learned and applied in future planning.

Sadly, planning is often seen as a technical, top-down exercise that focuses more on the elaboration of written documents than on the processes to which these relate. Essentially, a plan is a "to do" list, in which performance can be measured in terms of how many items have been achieved. Effectiveness and sustainability depend on "bottom-up" participation in the design and management of projects.

Chechettos-Sellas and Geyer (2006) look at planning at a far deeper level. They are the only authors that note that planning goes as far as planning for meetings and human resource planning. This suggests that CBOs should plan for things like skills needs, salary levels and technology. Meetings should be planned so that they are taken seriously. CBOs must know that meetings are held for different reasons, and always have a reason for holding a particular meeting. They also emphasize that CBOs should keep a written record of all their meetings. Such professionalism can attract more funders and stakeholders.

2.6.3 Monitoring

This is an internal checking mechanism to enable adjustments to be made in a methodical way. Monitoring systems should be simple and efficient, so that they can be readily incorporated in day-to-day routines.

Appropriate monitoring indicators relate to the aims, objectives and specific activities of the planned work, and must reflect the evolving concerns of intended beneficiaries. Monitoring may be done by routinely gathering information, or by methods such as spot-checks, visits, meetings, audits or reports.

Conrad and Hilchey (2011) refer to such monitoring as Community-Based Monitoring (CBM), which they define as a process where concerned citizens, government agencies, industry, academia, community groups and local institutions collaborate to monitor, track and respond to issues of common community (environmental) concern. They add that CBM can be done in two ways, commodity-based monitoring and non-commodity-based monitoring. Commodity-based monitoring deals with issues of economic importance as well as social and environmental issues, e.g., monitoring fisheries/ forestry activities. Non-commodity-based monitoring addresses issues that may not seem to be of direct economic importance, e.g., monitoring water and air quality and indicator species.

Failure is not inevitable. However, the mechanical application of best practice guidelines without attention to adequate monitoring can easily result in weak CBO projects. Scaling up requires a strong ethos of learning by doing, with reliable monitoring systems to provide constant feedback. The evidence suggests that CBO projects are best undertaken in a context-specific manner, with a long time horizon and careful and well-designed monitoring and evaluation systems (Mansuri and Rao, 2004).

2.6.4 Evaluation

Evaluation takes place when “the project’s performance is analyzed by comparing actual progress against planned progress”(Burke,1997, p.100). Project and program evaluation originated during the period of large-scale social programs and government interventions during the 1960s and 1970s (Patton, 1997). Evaluation focused on guiding funding decisions, helping to

determine what was worth funding and what was worth doing. As evaluations were implemented, a new role emerged: increasing overall program effectiveness by guiding improvements to the program (Patton, 1997). Thus, CBOs should be aware that evaluation is not only done once or after a program is completed (summative evaluation); Patton (1997) notes that it is conducted throughout the development and implementation of the program (formative evaluation).

It is therefore recommended that CBOs evaluate their projects during the course of the project, rather than only at the end or not evaluate at all. This can lead to the continuous improvement of the project. Evaluation helps organizations to think through and to question assumptions about the project, enabling CBOs to take practical decisions about adjustments to substantiate reports and this can assist future funding bids.

An organization's capacity to critically evaluate its own work is a measure of its maturity. Evaluation is as much concerned with the future as with the past; it involves an assessment of the results of past actions in order to incorporate the lessons in future planning. Evaluation should enable an organization to assess achievements as well as failures, and to learn from mistakes.

Sustainable CBO projects require careful evaluation coupled with phased-in scaling up with constant adaptation. Therefore, evaluations should be a central part of project design from the start and not merely a method to judge the effectiveness of projects after they are complete (Mansuri and Rao, 2004). Mansuri and Rao (2004) add that, in order to provide constant feedback, rigorous evaluation should be undertaken and whatever is learned from the evaluation should be incorporated into the next phase of project design so as to correct any mistakes uncovered.

2.6.5 Financial skills

The South African Co-operative Act 14 of 2005 does not state who is responsible for funding co-operatives, but rather talks about the Capital Structure of the Co-operative (Chapter 6) and Audit of Co-operative (chapter 7). It is therefore important that researchers investigate this issue in order to fill the gap.

An organization can only budget realistically if it can predict its resources. An organization that cannot make long-term plans relies on raising funds for short-term needs. This prevents it from consolidating or developing further. Lacking a clear direction, it finds it even harder to attract the support of donors. Dependent on external funding, it may be kept in financial limbo, unable to plan from one year to the next. It may become both ineffectual and unsustainable. Sustainability is not just about money; it means much more than simply finding a way to cover recurrent costs.

The Global Environmental Facility (GEF) in South Africa is administered from Pretoria by the UNDP. This program allocates funds to community projects that are based on natural resources management, biodiversity, climate change, and international water and land degradation and ozone layer depletion. It funded COP 17 Greening Initiatives. It is important to note that of about 100 projects recently funded by this program, not one was based in South Africa. Nevertheless, environmental projects in neighboring countries like Malawi and Lesotho have received funding.

The United Nations Environmental Protection Agency also funds CBOs. For example it has funded Community Action for a Renewed Environment (CARE), which offers communities funds to organize and take action to reduce toxic pollution in the local environment. CARE provides financial and technical assistance to communities to renew environments. The researcher could not find evidence on whether any South Africa environmental project/s been funded by the United Nations Environmental Protection Agency.

In New England, a program called the Healthy Communities Grant Program (HCGP) is funded by the United Nations Environmental Protection Agency. The HCGP works directly with communities to reduce environmental risks and to protect and improve human health and the quality of life. This is achieved by funding projects that benefit at-risk communities and increased collaboration through community-based projects. A unique feature of this program is that, it sponsors information sessions to assist applicants with the grant application process. These sessions provide an overview of the target program, submission requirements and examples of previously funded projects. Participants are offered practical tips on how to prepare a strong grant application.

On the African continent, the United States African Development Foundation (USADF) was created by the United States Congress with a unique mission to provide funds that promote

community-based economic and development activities in Africa. The USADF provides funding for different types of groups, including CBOs, which it describes as, “an organization made of a group of people who come together to accomplish a common goal or a set of goals tailored to meet the development needs of their community”.

According to the USADF, such CBOs should be based in African communities, with a project that benefits the community, has potential for job creation, manages funds and improve the quality of life of the local community. The majority of the USAD’s funding agreements range between 50 000 and 250 000 US dollars. It has provided financial support to more than 1500 small CBOs. The USADF currently operates in 21 African countries, but sadly South Africa is not among them.

A common denominator amongst the global and African funders discussed above is that they fund CBOs that benefit the entire community and that have good financial management. However, the global organizations support CBOs by organizing information sessions to assist them with the grant application processes, which is not the case with the African funders. Mansuri and Rao (2004) further state that differences in project effectiveness are explained largely by a community’s ability to engage in collective action, with high levels of “social capital”, improving participation in design and monitoring. Rao and Ibanez (2003) also found that a community’s capacity for collective action influences its ability to successfully apply for funds. Poorly organized communities are not only less likely to obtain funding for projects but are also more likely to mismanage funds that are allocated to them.

According to the South African Department of Water Affairs and Forestry’s (DWAF) Fund Raising for Projects Document (2005), the success of project funding is strongly influenced by the project idea, people, description and compliance with formalities. These four criteria form a good platform from which to secure project funding. The document adds that project funding requires a clear understanding of what type of funding is likely to be available for the type of project planned. This is accomplished through effective funder research and identification.

The DWAF document identifies four conditions for a project to raise funds: legal entity, organization and management, mandates, and systems and strategies. Most funders require that the proposed project has been formally set up as a legal entity such as co-operative. Thus, it is

important for groups to decide if their project is a “commercial project”(set up as a business to make profit) or a “non-commercial project” (not primarily established to make a profit but with the objective of creating employment/ developing skills).

Organization and management of the project is also very important, as this reassures funders that their funds are being properly used. Project beneficiaries, the participants and the project manager should be clearly stated in the business plan. Meetings of project staff and management should be scheduled on a regular basis and proper minutes should be kept.

According to DWAF, mandates should be clearly defined. Individuals such as the project manager, chairperson, treasurer or any other person that acts on behalf of the project need to be properly mandated in writing. The mandate may also include limitations on their powers.

Systems give funders a sense that their contribution will be well managed and safeguarded. They determine how assets should be purchased, insured and recorded in the books of the project as well as how people can be recruited, appointed, paid and dismissed.

The DWAF document also states that, project funding applications should set out how the long-term objectives of a project are going to be achieved.

According to the DWAF Project Funding document, there are three types of funding, namely grant funding, loan funding and partnership schemes. Grant funding does not require repayment of the funds. However, in some cases, funders insist on a contribution by the project participants or beneficiaries. This requirement is imposed in order to ensure that participants or beneficiaries commit to the project. Grant funding requires a reasonably high degree of formality, which could impose significant non-financial obligations. Furthermore, the application process can be tedious and competitive.

Loan funding is often a viable form of funding for a business-related project. Such funding is often avoided due to close scrutiny by the funder.

Finally, in a partnership scheme, both parties contribute and share the risk of a project. It is therefore important that CBOs are aware of fund raising formalities and the types of funding before applying for funding for their project. These could enhance the sustainability of the project, which is described in the DWAF document as

“indicating that the project is capable of generating sufficient funds, in the medium to long term, to cover all project expenses”(p. 72).

South African civil society, through NGOs, CBOs and members of the public, plays a crucial role in holding both government and industry environmentally accountable. This is achieved through their participation in environmental decisions and advocacy, reporting of non-compliance and occasionally, through legal challenges. Despite this, civil society’s ability to hold government and industry to account is being hampered by limited access to funding and legal advice.

This led to the establishment of the Centre for Environmental Rights (CER) in January 2009. This institution was initiated by a number of organizations, led by the Wildlife Environment Society of South Africa, who obtained seed funding from the Table Mountain Fund of the WWF. This independent institution aimed to provide legal support to NGOs and CBOs in the environment and environmental justice fields. Its functions include supporting NGOs and CBOs to initiate litigation and acting as the attorney of record.

That CER was initiated due to the NGOs and CBOs’ limited access to funding and legal advice. However, when the organization’s objectives were set out, only the legal advice aspect was considered. On the other hand, there are some South African projects/ programs/ agencies that support environmental CBOs. For the purpose of this study, the focus is on the Working for Water Program as NEC is contracted by this program.

The South African Working for Water Program is a pioneering environmental conservation initiative that successfully combines ecological concerns and social development. It gained political support and secured significant funding because it addresses unemployment, skills training and empowerment. It seeks to promote transformation by developing entrepreneurial skills and ensuring that at least 60% of the wages paid are earned by women. It is therefore clear that this program capacitates NEC with business skills that they can utilize for their future projects.

2.7 Insights from studies of other CBOs

2.7.1 Nigeria

One case study from Nigeria was reviewed. The outstanding feature is the partnership between community organizations and the government in terms of budget transparency and trust. Another strong feature in monitoring the community organization is the renewal condition/s attached. If community organizations fail to show evidence of a positive contribution, the contract can be terminated. This might lead to a few functional and sustainable community organizations rather than many ineffective organizations.

2.7.2 Kenya

In Kenya, community organizations register under the office of the President. The Kenyan government recognized the positive contribution made by community organizations to social and welfare activities. They were registered under the Community Organization Co-ordinator Bureau in the office of the president. Currently 1441 organizations are registered compared to only 250 in 1993.

2.7.3 China

The Shangri-La Institute for Sustainable Communities notes that their 13 years of success depends on a contextualized environment for projects, i.e., the community setting the agenda and driving the process, rooted in the local context (social, cultural, environmental, political and economic) that respects diversity and plurality, is action-based (seeking tangible results in the environmental, social, economic and political spheres) and promotes community engagement and participation in that learning is taking place at different levels.

These case studies all reflect the success of community organizations. What is interesting is that they all have different strategies. Nigeria places more emphasis on partnerships between community organizations and government. Kenya believes in the government supporting community organizations which leads to legal and institutional frameworks, and finally, all community organizations' activities in China are contextualized.

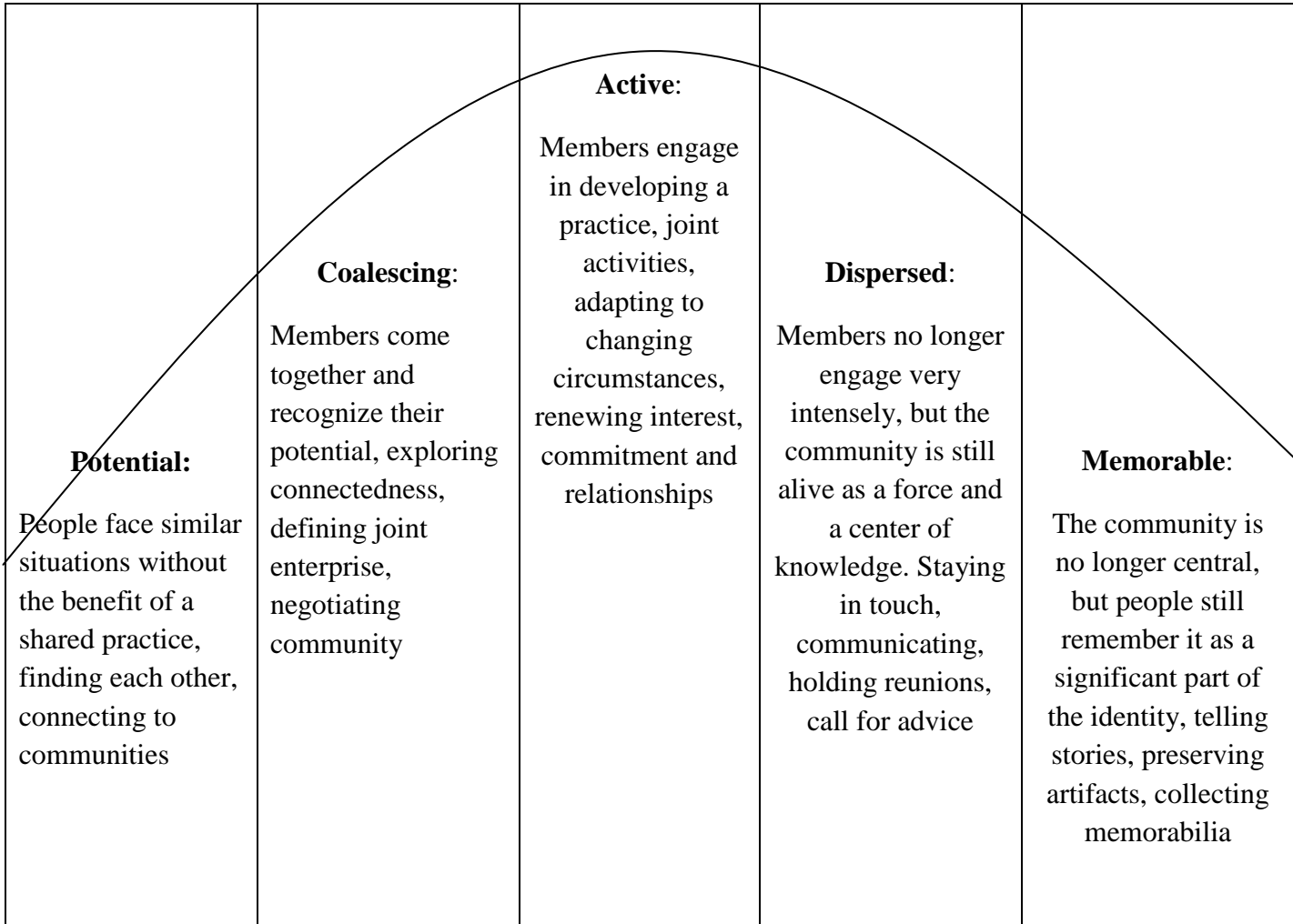
2.8 Conceptual framework of the study

This section examines the concepts, assumptions, expectations, beliefs and theories that support and inform the research, namely, communities of practice which provides one of the central analytical lenses for the study and social learning that is one of the central concerns of CBO structures.

2.8.2. Community of Practice

The notion of community of practice (CoP) was developed by Wenger as the basis for a social theory of learning. A CoP is a collection of people who engage on an on-going basis in some common endeavor. It emerges in response to common interests or positions, and plays an important role in informing members' participation and orientation to the world around them. It is a prime locus of the process of identity and linguistic construction (Wenger, 1998).

Given this background, there can be no doubt that NEC is a CoP; hence, this framework is relevant to this study. NEC is a group of people, all interested in local environmental issues and in taking action in response to those issues. Furthermore, those involved are able to identify themselves through the language, norms, values, attitudes and culture that take place whilst participating in their activities. Hence the identity of the members is shaped as an environmental co-operative. NEC is a local Ntuzuma Township group, which meets face to face, has no defined / allocated budget support and is not registered with Sector Education and Training Authority SETA. According to Wenger (1998), a CoP is made up of three elements, the domain (sphere of interest, e.g., environment), the community (meet, share information, learn from one another, not daily-based) and the practice (practitioners, that do). CoPs come in a variety of forms. Some are local while others are global. Some meet mainly face to face and others mostly on line. Finally, some are supported with a budget and some are formal while others are informal.



TIME \longleftrightarrow \longleftrightarrow

DIAGRAM 2.7.2: DEVELOPMENT STAGES OF A COMMUNITY OF PRACTICE

Wenger (1998) states that, a CoP moves through various stages of development characterized by different levels of interaction among members and different kinds of activities. Considering these was important in examining how NEC emerged and developed as a functioning CBO supporting social learning activities for the common good. Wenger (1998) lists the stages as:

- potential,
- coalescing,
- active,
- dispersed, and
- Memorable, as in the above diagram.

His framing enabled me to note how during the potential stage, some people from Ntuzuma Township recognized that they were faced with environmental issues. They came together, explored their potential and negotiated among themselves. The name Ntuzuma Environmental Co-operative was adopted; this is referred to by Wenger as the coalescing stage. The active stage of CoP was when this group engaged in developing possible practices and joint activities. This is where their environmental activities for schools and communities were developed and implemented, for example, school visits, greening the community and establishing school and community gardens. They then committed themselves to these activities.

Wenger further states that, the dispersed stage is when the members no longer engage very intensely, but the community is still alive as a force and center of knowledge. They stay in touch, communicating, holding reunions and calling for advice. It appears that NEC has not yet reached this stage, since its members still engage very intensely and are involved in daily practices. The memorable stage has also not been reached since this is the last stage which follows the dispersed stage. It is described as when the CoP is no longer central but people still remember it as a significant part of their identity, telling stories, preserving artifacts and collecting memorabilia.

In considering Wenger's development stages of CoP in relation to NEC it is noted that this CBO has not developed to all five stages but only three, the potential, coalescing and active stages. This study also demonstrates that a CoP develops practices that are people's own response, even to external influences. This means that they are fundamentally self-organizing systems. Their practices reflect the members' own understanding of what is important and what matters to them. NEC demonstrates this characteristic when planning their annual activities; as a group they decide which environmental issues they will address that year. While stakeholders make inputs, the final decision is taken by the co-operative, after considering their context.

Wenger (1998) also talks of CoP membership as being based on participation rather than on official status, organizational affiliation or institutional charter. Members can contribute to the practice in different ways and to different degrees. This permeable periphery creates many opportunities for learning, as other experts and newcomers learn the practice in concrete terms and core members gain new insights through contact with less-engaged participants. NEC also invites outsiders to engage in environmental awareness at schools and in the community. Its boundaries are flexible. The life-cycle is determined by the value it provides to its members, not by an institutional schedule. NEC does not appear the minute a project is started and does not disappear with the end of a task. This is supported by the fact that this co-operative has sustained itself since 2004.

Organizations can play a role in developing and nurturing a CoP (Ibid). A CoP needs to be carefully seeded and nurtured by organizations, but in a way that does not smother self-organization. Wenger (1998) further states that even when organizations support CoP, its development ultimately depends on internal leadership. This is known as Legitimizing Participation. Organizations can also nurture CoPs through providing support like resources, guidance, making sure they include all the right people and helping them to create links with other communities. Again, organizations can help communities to connect their agenda to business strategies.

Wenger (1998) concludes by stating that, no community can fully design the learning of another, but conversely no community can fully design its own learning. In summary this means that organizations cannot design learning for another Cop. Every CoP needs other organizations' input when designing their learning activities. Some authors acknowledge the possibility of conflict within CoPs. For example, Wenger (1998) and Roberts (2006) distinguish between "fast and slow" communities, while Wenger (1998) suggests that some communities die young whilst others endure for the long-term. Brown and Duguid (2001) argued that individuals may participate in loose "networks of practice" across organizational boundaries. It is through, and in relation to, these communities and networks that individuals develop their identities and practices through processes such as role modeling, experimentation and identity-construction. Potential for tension and conflict exists because during their lifetime, individuals participate not within one community but within several, each with different practices and identity structures.

The important issue is how individuals manage their roles, actions and relationships within multiple communities. An individual's continual negotiation of "self" within and across multiple CoPs may generate intra-personal tensions as well as instabilities within the community.

From the above views, it can be concluded that some CoPs confront challenges. This is the main motivation for this research study, in that it aimed to establish the causes of conflict, and the "slow" and "die young" tendencies of environmental CBOs. Brown and Duguid (2001) suggest that this may be caused by networks of practice where participants participate in more than one CoP. It is therefore important that, at the same time as networking is encouraged, it should be carefully practiced to limit the conflict, and "slow" and "die young" tendencies of environmental CBOs.

The theory of communities of practice resonated with much of my experience of functioning CBO structures, some of which operated with a situated common purpose and others that lacked this. I thus concluded that this theory would be an important analytical tool to interpret the data on the development and functioning of NEC as a CBO fostering social learning and change.

2.8.3 Social learning

According to Reed et.al. (2010), social learning is a change in understanding that goes beyond the individual to become situated within wider social units or CoPs through social interactions between actors and within social networks. On the other hand, Wals (2007) defines social learning as "learning that can take place at multiple levels, such as individual, group, organization, network of actors and stakeholders" (p. 39). Wals adds that, social learning is essentially about bringing together people of various backgrounds and with different values, perspectives, knowledge and experiences, both from inside and outside the group or organization, in order to engage in a creative quest for answers to questions for which no ready-made solutions are available.

The benefits of social learning in this case study are in line with the following characteristics:

- Members of NEC learn from one another through working together, even if they are not thinking alike or acting alike.

- Creating trust and social cohesion within the group, partners, schools and the community at large.
- NEC, together with external agents, creating a sense of ownership of environmental projects.
- Making collective environmental projects meaningful.
- Collective learning can perform better than the sum of individual learning.
- Demonstrating the possibility for social units to learn collectively as opposed to large numbers of individuals learning independently.

This study therefore sought to determine whether NEC practices social learning and what benefits this has for the success of their environmental projects.

In reading about social learning, I was able to relate much of the theory to the context of my study. However, I had to take care that the theory was not simply applied to my experiences. This literature review was simply used as a source of theory that could later be brought into the discussion of the data emerging in the context of the study.

2.9CONCLUSION

This chapter reviewed the literature on how CBOs have operated in different contexts. Throughout this chapter it was evident that CBOs set out to contribute to sustainable development through local environmental programs and activities. Perspectives in the literature on how CBOs initiate and sustain their environmental programs and activities were highlighted. Sound project management skills appear to play a crucial role in sustaining CBOs' environmental programs and activities, for example, through monitoring, evaluation and financial management.

Furthermore, networking and partnerships were also seen as CBO good practices. Community involvement was discussed as one way of sustaining environmental programs and activities in communities. Three case studies of international CBOs(Nigeria, Kenya and China) were also examined.

The literature review enabled me to frame the study and to develop perspectives and focus areas to inform the research design. The following chapter discusses the research design decisions and the methodology and methods employed to investigate the key question guiding this study.

CHAPTER 3: RESEARCH DESIGN AND METHODOLOGY

3.1 INTRODUCTION

This chapter outlines the research design decisions, methodology and methods used to collect data so as to review NEC. The theoretical framework and data generation techniques are described. The chapter also explains the process of selecting research participants. It elaborates how and why the case study approach was used to probe the research question stated in Chapter 1. Data generation and analysis processes, and how these were used to arrive at the research findings in Chapters 4 and 5 are discussed, as well as validity, ethical considerations and the reliability of the study.

3.2 RESEARCH ORIENTATION (interpretive case study)

In investigating the strategies of an environmental CBO and how it has successfully sustained its school based and community based projects, I decided to employ an interpretive case study. This allowed me to generate data on the organization's operations as well as to probe and verify these so as to obtain an in-depth picture of the successful functioning of this co-operative. An interpretive case study was appropriate in that I was interested in identifying and understanding the strategies that led to the success of this CBO and in carefully auditing and verifying these so that I can advise similar CBO structures in the province.

Most interpretive case studies use a qualitative approach. Terre-Blanche et al. (2006) define interpretive research as a method that describes and interprets people's feelings and experiences in human terms rather than through quantification and measurement. This approach to social science research emphasizes the importance of working with insiders' viewpoints to understand social realities (Creswell et al., 2007).

According to de Beer et al. (2005, p.65), the objectives of an interpretative approach include community-based learning, environmental literacy and active involvement in environmental activities and experiences. This approach was relevant for this study as NEC is a CBO that promotes community-based learning. They distribute pamphlets or flyers to promote environmental literacy and are constantly planning and implementing environmental activities. The research approach adopted assisted in interpreting and verifying the successful functioning of NEC's environmental education activities and attributing meanings to these activities. It was used to generate meanings in a social process and to obtain and verify insiders' viewpoints in order to understand social realities.

The interpretative approach argues that the purpose of research is to make social reality intelligible and to reveal its inherent meaning. As the researcher, I was able to understand how NEC organizes and implements their activities in a manner that is sustainable.

The ultimate aim of interpretive research is to offer a perspective on a situation and to analyze it so as to provide insight into the way in which a particular group of people make sense of their situation or the phenomena they encounter (Creswell et al., 2007, p. 99). The strength of using an interpretive approach within qualitative research is the richness and depth of explorations and description. The detail and research design also allowed me to audit and verify many of the claims made as well as to develop insights on what contributed to the projects and the organization becoming successful when most others failed. The researcher becomes the instrument through which the data is collected and analyzed. However, the intention of a qualitative interpretive study is not to generalize but to provide a rich description of the participants' perceptions of their life-worlds (Ibid).

Janse van Rensburg (2001:16) describes an interpretive researcher as one that is "interested in the meaning people make of the phenomena". Therefore, this research drew on the knowledge, skills and experiences of the people who have been part of the environmental school and community activities organized and conducted by NEC. My purpose was not to evaluate the project activities as many evaluations had already been done as part of the funding cycle, but to carefully audit and verify practices that had contributed to the success of the organization.

Applying an interpretive approach indicates that this study is based on contextual meaning making. Hence I selected members of NEC, schools adopted by NEC and stakeholders who have been involved in the organization's environmental activities. This yielded well-grounded and rich information. The approach makes it possible to understand other people's experiences through interacting with them and through using qualitative research methods and participating in some of their daily activities (the natural setting). A further aspect of this approach was to listen to what people had to say based on their experiences (epistemology). The researcher therefore understood that meanings are socially constructed and are modified and interpreted according to one's specific context (Cohen et al., 2000).

3.3 DESCRIPTION OF THE RESEARCH METHOD (Case study)

This was an interpretive case study since the goal was to investigate, understand and interpret strategies in a specific situation in its own context. The study aimed to gain in-depth understanding of the workings of NEC.

Case studies are defined in various ways. However, a definition compiled from a number of sources (Stone, 1978; Benbasat, 1984; Yin, 1984; Bonama, 1985 and Kaplan, 1985) in Benbasat et al. (1987, p. 370) is as follows:

A case study examines a phenomenon in its natural setting, employing multiple methods of data collection to gather information from one or a few entities (people, groups or organizations). The boundaries of the phenomenon are not clearly evident at the outset of the research and no experimental control or manipulation is used.

A case study is an intensive study of a single unit or a small number of units in order to understand a larger class of similar units. This allowed the researcher to seek a range of different kinds of evidence. Such evidence exists in the case setting and has to be abstracted and corroborated in order to obtain the best possible answers to the research questions. The approach enables the researcher to use multiple sources of evidence, each with its strengths and weaknesses (Gillham, 2000).

The study site was Ntuzuma Environmental Co-operative, located in the city of Durban in KwaZulu-Natal, South Africa. This site was selected for the following reasons:

- a) NEC is one of the successful environmental co-operatives in eThekweni, KwaZulu-Natal. It was established in 2004 and continues to successfully conduct environmental education projects and activities.
- b) NEC is a CBO that conducts environmental activities.
- c) The organization was easily accessible for the researcher to collect data through interviews and observations.
- d) The researcher is an environmental extension officer who works with CBOs. NEC is one of the CBOs that the researcher works with.
- e) Evidence of sustainable projects conducted by this CBO and the excellent quality of these projects.
- f) The availability of documents relating to NEC's programs and activities.

It was therefore interesting for the researcher, who works with many other environmental co-operatives, to investigate and determine why this particular co-operative is operating successfully. Hence the whole study was sited at NEC.

According to Cohen et al. (2000), a case study facilitates the presentation of data in forms that are accessible to the general public, thus contributing to the democratization of knowledge. This study will allow the researcher to share the findings with her employer (the KZN Department of Environmental Affairs) and other environmental CBOs. The researcher will also gain more insight and understanding into how environmental education activities can be sustained.

A case study seeks to generate and verify data to describe the relationships that exist in reality, very often within a single organization. These realities can be captured in greater detail by an observer-researcher, with the analysis of more variables than is typically possible in experimental and survey research.

According to Benbasat et al. (1987, p.370), a case study is a viable research method for the following reasons:

- It is necessary to study the phenomenon in its natural setting.
- The researcher can ask “how” and “why” questions, so as to understand the nature and complexity of the processes taking place.
- Research is conducted in an area where few, if any, previous studies have been undertaken.

This research involved a case study rather than action research as the researcher was an observer rather than an active participant. Furthermore, the study was exploratory, explanatory and descriptive. The researcher focused on “How” and “Why”, rather than “How to” as is the case in action research. For these reasons, the study intentionally treated action and case study research separately.

However, there are limitations to the case study design. A case study might lack scientific rigor, may not be generalizable, and is time consuming. Furthermore, the researcher might generate large quantities of data that is hard to analyze (Wimmer and Domonick, 2002). Lindegeer (2002) notes that, problems might emerge with regard to the validity of the information and that causal relations are often hard to test.

The researcher might experience limitations with regard to eliminating bias and in continuously monitoring and verifying all interpretations in order to provide a rigorous study. Case studies of a single setting can be considered weak, as they are typically restricted to one case and it is difficult to generalize the findings since it is difficult to find similar cases with similar data that can be analyzed in a statistically meaningful way. Furthermore, different researchers might have different interpretations of the same data, thus adding research bias to the equation.

The researcher was aware of the above limitations, and accepted the burden of having to convince readers of the study’s legitimacy. Hence, different data gathering techniques were used and great care was taken to audit and verify the detail reported in documents and interviews.

3.4 SELECTION OF INFORMANTS

According to Gay et al. (2009), qualitative sampling is the process of selecting a small number of individuals for a study in such a way that the individuals chosen will be good key informants (i.e., collaborators, co-researcher) who will contribute to the researcher’s understanding of a given phenomenon. They add that, the characteristics of a good key informant include the ability to be reflective and thoughtful, to communicate (orally, in writing, or both) effectively with the researcher, and to be comfortable with the researcher’s presence at the research site.

Gay et al. (2009) emphasize that researchers need to keep in mind the primary goal: selecting participants who can best add to understanding the phenomenon under study, rather than those that necessarily represent some larger population. They add that, because many potential

participants are unwilling to undergo the lengthy process of participation, sampling in qualitative research is almost always purposive.

According to Gay et al. (2009), two general indicators are commonly used to determine if the number of participants selected is sufficient. The first is the extent to which the selected participants (informants) represent the range of potential participants (informants) in the setting. The second indicator is the redundancy of the information gathered from the participants (informants). However in this study the focus was on finding information-rich sources of data rather than seeking a representative sample.

Therefore, of the 15 members of NEC, only four were selected for interviews, including the founder. These four participants were not selected by the researcher but were nominated by the co-operative on the basis of their roles and experience within NEC and their communication skills. Of the six local schools adopted by NEC, three were involved in the research. These schools were chosen by the researcher in consultation with the co-operative. Furthermore, of the many funders and stakeholders, two were interviewed based on their involvement with the co-operative. One community member was nominated by NEC because she is old and takes part in many community activities, including ward forum programs. Thus, a total of ten interviews were conducted in order to gain insight and determine the perspectives of different individuals associated with the co-operative. Since the interpretive researcher seeks to create an integral and persuasive picture of phenomena, more than one participant and different perspectives should be included (Ibid)

3.5 DATA GENERATION

Data generation methods are the means to answer the research questions. Their selection depends not only on these questions, but on the actual research situation and what will work most effectively in that situation to yield the required data. I applied creativity and insight in selecting my research methods.

To answer the research question and to develop the case study, three sources of data generation were used, namely:

- Document analysis
- Semi-structured interviews
- Observation.

This is in line with Yin (2009, p. 78) who states that “a case study requires multiple data collection, whose results hopefully converge, in order to establish constructive validity”. Yin (2009) adds that these methods include:

- direct observation of activities and phenomena and their environment
- indirect observation or measurement of process-related phenomena
- interviews-structured or unstructured

- Documents such as written, printed or electronic information about an organization and its operations.

My methods developed as an audit of the organization and its activities so as to track its claims and how these contributed to its success. The three techniques used to generate and verify data were document analysis (review), in-depth interviews and direct observation of activities. All three techniques were used since each has its own strengths and weaknesses and each complements the other.

The biggest challenge during data collection was the language of communication. The first language of the respondents, which is isiZulu, was used during the semi-structured interviews. Translation was a challenge, as in many instances, isiZulu words and phrases cannot be directly translated into English and vice versa.

3.5.1 Document Analysis

The first technique used in this study was document analysis. According to Best and Kahn (2003) and Merriam (1988), document analysis is one of the most important means to collect data in a qualitative case study.

Documents may pose difficulties as they may be highly biased and selective. In addition they were not intended to be used as research data as they were written for a different purpose, audience and context. Nevertheless, this technique was used since documents are useful in rendering the phenomena under study more visible. Furthermore, documents were analyzed to orientate the researcher to the CBO's context.

During document analysis, the researcher focused on all types of written communication that could shed light on the phenomenon under investigation. In research, a distinction is made between primary and secondary sources of data (Creswell et al., 2007, p. 82-83). Generally speaking, primary sources are data that is unpublished which the researcher gathers directly from the participants or organizations. In other words, it is the original source document (minutes of meetings, reports, correspondence, etc.). Secondary sources refer to any material that is based on previously published work (books, articles, etc.). In this study both primary and secondary sources were analyzed.

Table 3.5.1: Documents Analyzed

DOCUMENT NUMBER	PURPOSE OF THE DOCUMENT	SUMMARY OF INFORMATION FOUND	LANGUAGE USED	DATE OF PUBLICATION
1. Bonisanani Primary School Confirmation of Partnership Letter	To confirm partnership and provide evidence	The school appreciated the partnership for the steam cleaning campaign	English	08.03.2011
2. Ntuzuma Co-op Stream Cleaning Campaign Planning Meeting Programme	Programme for the meeting	Planning meeting for the cleaning campaign	English	17.09.2010
3. Administration details	Document used for requesting support	Business summary –types of activities, qualifications and management structure	English	Not stated
4. Muziwabantu Post-Arbor Day Activity meeting	To evaluate Arbor event	Stakeholders and NEC were assessing the product and impact of the Arbor event	English	27.09.2012
5. Ntuzuma Co-operative LTD, Constitution	Securing funds	Name of organization, project description and location, team members, background, objectives, achievements and future plans	English	Not written
6. Halalisa Primary School Partnership with Ntuzuma Co-op	Report on the meeting held	Stakeholders who attended the meeting, minutes of the meeting	English	29.04.2009
7. Letter from ward councillor	Councillor confirming that he had knowledge of the co-operative	The councillor confirmed that he had no objection to the co-operative	English	16.05.2005
8. Letter from the	Supporting	Recommending	English	30.06.2009

Municipality	document to open bank account	that the bank account for the co-operative be opened		
9. Dumehezi High School	Dumehezi High appreciating NEC	The school thanked NEC for cleaning the school grounds and surrounding area	English	14.07.2010
10. INK News local newspaper article 1	Informing readers about NEC	NEC celebrating five years of success	IsiZulu	Not written
11. INK News local newspaper article 2	Informing readers about NEC and school garden partnership	Readers informed about the partnership between NEC and schools, the activities achieved and the stakeholders	IsiZulu	Not written
12. Mayoral Awards Biodiversity Category Nominee	Mayoral Awards entry	The achievements of the co-operative like school competitions, curriculum and community development	English	Not written
13. Membership, objective, activities	Securing funding	Lists all members, background, objectives, activities and evidence of projects and activities like waste control and recycling, tree planting, farming, removing alien invasive plants, courses/conferences attended	English	Not written
14. Co-operative Act 14 of 2005	To provide for the formation and registration of co-operatives in South Africa	This Act defines a co-operative, and the purpose, powers, members, general meetings and management of co-operatives	English	Not written

15. Ntuzuma Environmental Co-operative	Evidence of achievements	This document has pictures of some of NEC's achievements	English	Not written

Yin (2009, p. 80) states that, “documentation is a stable source that can be reviewed repeatedly”. Hence all documents analyzed were kept in a file. I analyzed a range of different documents for different reasons.

The table shows that different documents provided evidence on NEC’s activities. Some were useful for the background on how NEC was established or for context (such as Ntuzuma Co-operative LTD, Objectives of the Co-operative, South African Co-operative Act). Others were useful for gaining insight into and auditing the practices of NEC (meeting agenda and minutes). Some offered insight into other people’s view (such as newspaper articles) and some gave information on NEC’s sustained environmental activities (such as Mayoral Awards Nominee).

See appendix 4, Ntuzuma Co-operative LTD Constitution and appendix 5, INK Local newspaper article which were analyzed.

3.5.2 Semi-structured interviews

Semi-structured interviews were used to verify the documentary evidence and to probe the knowledge and experience of members of NEC, schools, funders and stakeholders involved in NEC. This technique was used in the natural and familiar environment of the respondents, thereby facilitating easy interaction and data generation. A key role player who is the founder of this co-operative was interviewed, particularly to obtain background information on the reasons for the establishment of NEC.

Open-ended questions were used in order to enable questions to be re-ordered, expanded and to be used for further probing if necessary. The questions were not only based on the research question, but on the need to understand what had been done and the successful strategies employed by NEC. The questions were focused and context specific. The purpose was to obtain more information on the successful operational strategies of NEC. Cohen et al. (2000) argue that interviews allow for great depth. I used this method to promote free and rich conversations during which participants could explore their thoughts and experiences free from intimidation. Semi-structured interviews allow for participants to both respond to pre-determined questions and offer free responses.

In all the interviews I used a face-to-face approach to obtain in-depth insight into knowledge and experiences. Interviews allow a researcher to investigate and probe things that cannot be observed. Through interviews we can probe an interviewee's thoughts, values, prejudices, views, feelings and perspective.

Ten interviews were conducted using four different sets of questionnaires. Different questionnaires were used for interviews with different types of participants, namely, four members of NEC, three educators, one stakeholder, one funder and one community member (see table 3.5.2 below). The questionnaires were purposefully designed in order to capture a wide range of views from people with experience and knowledge of the workings of NEC. All the questions were influenced by my research goal of determining how NEC's environmental activities are funded, developed, supported and monitored. The aim was to generate evidence on NEC's successful operational strategies in order to inform other CBOs and to suggest strategies that can strengthen CBO-driven environmental projects.

Letters requesting permission to conduct the interviews were sent to all participants. Signed consent letters were returned. See appendix 2 for a letter from the Department of Agriculture and Environmental Affairs (stakeholder). All these were kept in a file of evidence. Appointments were made for the interviews. All the interviewees were given copies of the questionnaires in advance so as to allow for preparation. I ensured that the interviewees were familiar and comfortable with the interview questions before starting the interview. I requested permission to tape record the interviews. The recordings were later transcribed. It was very interesting to note that none of the respondents wanted to remain anonymous. All felt that there was nothing to hide especially since this was a "success story". Nevertheless as the researcher, I advised them of all their rights before the interviews. English was used as the medium of communication to interview educators, the stakeholder and the funder, and isiZulu was used for the members of NEC. I translated from isiZulu to English. See appendix 7 for an isiZulu transcript which was later translated into English. All the other semi-structured interviews were transcribed verbatim. See appendix 6 for an example of a transcribed interview.

Table 3.5.2: Summary of the semi-structured interviews conducted

DATE OF INTERVIEW	PERSON INTERVIEWED	CATEGORY	INDEX	DURATION OF INTERVIEW
1. 16 May 2012	Ms Lungile Ngcobo	Ntuzuma Environmental Co-operative: Secretary	INT 01	14 MIN
2. 21 June 2012	Ms Khosi MaZulu	Ntuzuma Environmental Co-operative: Handcraft Co-ordinator	INT 02	11 MIN
3. 01 July 2012	Ms Sindisiwe Ntombi Zulu	Ntuzuma Environmental Co-operative: Nursery Co-ordinator	INT 03	12 MIN
4. 20 May 2012	Mr. Paulos Gwala	Ntuzuma Environmental Co-operative: Founder	INT 04	17 MIN
5. 15 May 2012	Ms Pretty Khoza	Muziwabantu Primary Eco-School Principal and Enviro Co-ordinator	INT 05	18 MIN
6. 17 July 2012	Ms Banothile Khuluse	Halalisa Primary Eco-School Enviro Co-ordinator	INT 06	8 MIN
7. 08 August 2012	Mr. Nkosinathi Ngubane	Bonisanani Primary Eco-School Principal	INT 07	13 MIN
8. 05 July 2012	Ms Fikile Hlophe-Kubheka	Senior Environmental Officer- Department of Agriculture and Environmental Affairs	INT 08	19 MIN
9. 23 August 2012	Mr. Minesh Naidoo	Working for Water Program Community Liaison Officer	INT 09	15 MIN
10. 29 August 2012	Ms Christophina Nxumalo	Community Member	INT 10	25 MIN

3.5.3 Observations

The distinctive feature of observation as a research process is that it offers an investigator the opportunity to gather live data from naturally occurring social situations. The literature notes that observation is one of the most effective ways of verifying information generated using different methods, from different sources. It also enables a researcher to capture pieces of information that are either ignored or difficult to pick up using other methods (Atkinson and Hammersley, 1994, and Kelly, 1999).

Robson (1993, p. 190) confirms the centrality of observation to any form of inquiry. In his view: “As the actions and behavior of people are a central aspect in virtually any enquiry, a natural and obvious technique is to watch what they do, to record this in some way then to describe, analyze and interpret what we have observed”.

Creswell et al. (2007, p. 83) further state that, “observation is the systematic process of recording the behavioral patterns of participants, objects and occurrences without necessarily questioning or communicating with them. The purpose of observation is to give the researcher direct, firsthand experience with the phenomena under study. It will allow the observer to collect information about people because people do not always do what they say”.

The risk is that, by its very nature, observation is highly selective and subjective. We seldom observe the whole situation but tend to focus on a specific event or object within the whole, thereby cutting us off from the whole (Ibid). However, the researcher begins to build a relationship with the participants within the setting, thus facilitating the employment of other data gathering techniques. As the researcher I ensured that I defined the purpose and focus of the observations and that I knew exactly what I wanted to observe. I never sought data aggressively, but adopted a relatively passive role, and observed events as they occurred.

There are four types of observation (Ibid): complete observer, observer as participant, participant as observer and complete participant. In this study, the researcher was an “observer as participant”. In this role, the researcher enters the situation, but focuses mainly on his or her role as an observer. As the researcher, I looked for patterns of behavior in the community project context to understand the assumptions, values and beliefs of the participants, and to make sense of the social dynamics. However, I remained uninvolved and did not influence the dynamics of the setting (Ibid).

As a researcher I captured two dimensions, the recorded description of what I observed and any reflection on what happened. Siggelkow (2007, p. 21) explains that, “our observations are guided and influenced by some initial hunches and frames of reference” and emphasizes that “an open mind is good; an empty mind is not.” Field notes were taken during observations. These

contained detailed descriptions and explanations of the phenomena observed during fieldwork. The field notes reflected interpretations of the observed phenomena. They were used to document the data in order to maintain the chain of evidence. Field notes were an important method of monitoring the research and for keeping track of events taking place during the research period. Through field notes, I managed to minimize limitations caused by observation.

Photographs were taken during observations. These provided graphical and vivid testimony of the context in which the research was carried out and supported my annotations (Cook, 2005). They substantiated the events I observed, and through a reflective process helped to elicit explanations of the social context.

This technique offers an investigator the opportunity to gather live data from naturally occurring social situations. I was able to look directly at what was taking place in settings rather than relying on second hand accounts (Cohen et al., 2000). This is in line with the ultimate aim of the interpretive research approach employed in this study, as it offers a perspective of a situation and analyzes it so as to provide insight into the way in which a particular group of people makes sense of their situation as a successful community based project.

In general the interpretive approach involved a systematic analysis of socially meaningful action through direct and detailed observations of people in natural settings, in order to arrive at understandings and interpretations of how people created and maintain the community-based initiative under review. Since NEC utilizes practical and hands on environmental activities, I observed to determine if what was in documents analyzed and what was said during the interviews, was in line with their activities. For example, I observed to see if they involved other stakeholders in their activities as reflected in their reports. Thus, the researcher had direct firsthand experience of the phenomena under study.

I was able to observe the eight NEC activities tabulated in Table 3.5.3 below:

Table 3.5.3: Activities observed

OBSERVATION NUMBER	WHAT THE ACTIVITY WAS OBSERVED	DATE OF OBSERVATION	EVIDENCE OF OBSERVATION	INDEX	DURATION
1.	Ntuzuma Environmental Co-operative Stakeholders Forum Meeting	26 April 2012	Field notes , Attendance Register and Agenda	OBS 01	10:00-11:45am
2.	Removing Alien Invasive Plants	24 May 2012	Field notes with Photos	OBS 02	08:30 - 11:00 am
3.	Commemorati on of World Environmental Day	05 June 2012	Field notes with Photos	OBS 03	08:30am - 13:30 pm
4.	Ntuzuma Co-operative Community Gardens	21 June 2012	Field notes with Photos	OBS 04	09:00-11:45 am
5.	Arbor Week Planning Meeting	05 July 2012	Field notes	OBS 05	10:00am - 12:15 pm
6.	Ntuzuma G Clean-up Campaign	18 July 2012	Field notes with photos	OBS 06	09:00am - 12:00 pm
7.	Ntuzuma Farmers' Workshop	21 July 2012	Field notes with Photos	OBS 07	09:00am - 13:15 pm
8.	Plant Propagation Demonstration at Ntuzuma Environmental Co-operative Nursery	01 August 2012	Field notes with Photos	OBS 08	09:00-11:00 am

I observed the different activities, including meetings, workshops and practical activities noted above. These ranged from NEC members working alone, to working with other stakeholders, schools and the community. These observations broadened my understanding of NEC operational strategies and how they obtain funding and support and monitor their projects. Through observing their practical activities, I was able to conceptualize and better understand the dynamics and concepts and the language used during environmental activities. This enabled me to gain a holistic understanding of how environmental CBOs operate. See appendix 8 for a report from the first observation.

3.6 DATA ANALYSIS

Mc Niff (1998) and Poggenpoel (1998) note that, data analysis is the process of making sense of the different sets of data collected in the field. In qualitative research, data takes the form of words rather than numbers as is the case with quantitative research (Miles and Huberman, 1994). The data analysis process began with data collection in March 2012 and continued until the final report was written and submitted. According to O’Leary (2004, p. 184), “during analysis, the researcher needs to work strategically, creatively and intuitively to get a feel for the data, to cycle between data and existing theory, and to follow the hunches that can lead to expected yet significant findings”.

3.6.1 Coding

Once the data collection was complete, the semi-structured interviews were transcribed directly from the tape recordings. The aim was to keep to the original words of the interviews. I then coded the data from the interviews, documents and observations and verified insights through a process called triangulation, which is defined by Denzin and Lincoln (1994) as a strategy that reduces the risk that a conclusion only reflects the systematic biases or limitations of a specific method. It enables a better assessment of the validity and generality of the explanations that develop. Qualitative studies generally rely on the integration of data from a variety of methods and sources of information.

I color coded the data from all three data collection techniques (documents, semi-structured interviews and observations) into themes. These were constructed using the theories that informed the study, namely, Community of Practice, Social Learning and Project Management Practices. Coding involves reviewing lines, sentences and segments of the transcribed interviews and field notes to decide which codes fit the concepts suggested by the data (Strauss and Corbin, 1990).

Strauss and Corbin (1990) identify three levels of coding: open coding, axial coding and selective coding. Open coding is concerned with identifying, naming, categorizing and

describing the phenomena found in the data. Axial coding is the process of relating codes to each other, via a combination of inductive and deductive thinking. Finally, selective coding is defined as the process of choosing one category to be the core category and relating all other categories to that category (Ibid).

In this study, open and axial coding was used. Open coding was used as the process of “breaking down, examining, comparing, conceptualizing and categorizing data” (Glaser and Strauss, 1967, p. 61). Themes and subthemes were developed using those codes, e.g., data about partnerships was coded red, and data about community involvement was coded green. This facilitated systematic analysis of the data.

Axial coding was then applied. The researcher looked for any and all kinds of relations and fit things into a basic framework of generic relationships. This is where the researcher seeks to identify causal relationships between categories. This process is also referred to as the “paradigm model” as it allows interpretative reading of the data in order to make observations about the effectiveness of the organization under study.

During the coding procedure the researcher advances by “creating and assigning categories, continues by exploring connections between them, and concludes by focusing on an integrating core” (Dey, 1999, pp. 146-147). Each of the responses was coded, and similarities, differences and unique findings were mapped in order to develop the themes and other issues for discussion on the effectiveness of the organization.

During the coding process, it is important to keep written notes that are meaningful. These notes are often called analytical memos. Memos were mainly used to record longer definitions out of the coding so as to capture analytic insights about the significance and relationship to other themes. This provided insight into the effectiveness of the organization. The memos were kept manually in a file. Huberman and Miles (1994) note that the importance of data coding is that it reduces data overload. See appendix 9 for a sample of coded interview data. The themes and sub-themes emerged from issues and data that were collected from documents, semi-structured interviews and observations.

As noted above, the themes were influenced by the research goals and the theories that underpinned this study. I started by categorizing the data into five themes and five sub-themes. See appendix 10 for a copy of an analytical memo. Analytical memos were an important mechanism to process the data, since I used them to synthesize insights into different themes from all the data sources through triangulation that verified and illuminated perspectives on the effectiveness of the organization.

The analytical memos and the associated data themes contained in each formed the foundation for reporting on the findings of the study (see Chapter 4).

3.6.2 Qualitative method

The qualitative method that was adopted for this study is descriptive and inferential in character. The use of this method promoted validity, since the findings were supported by evidence which enabled the researcher to understand the meaning of what was going on. Since I wanted to identify sustainable practices that NEC employs, this method allowed me to look at the processes rather than the result, making this approach appropriate. Gillham (2000, p.11) encouraged the use of a qualitative approach, noting that the “qualitative method enables you to get under the skin of the group or organization to find out what really happens-the informal reality which can only be perceived from the inside”.

3.6.3 Inductive approach

Gay et al. (2009) explain that qualitative data analysis is based on induction: the researcher starts with a large set of data representing many things and seeks to progressively narrow them into small and important groups of key data. According to William (2006, p.16), an “inductive approach is moving from specific observations to broader generalizations and theories. The researcher begins with specific observations to detect patterns and regularities, formulates some tentative hypotheses that can be explored and then finally ends up developing some general conclusions or theories. It is more open-ended and exploratory”.

This approach was appropriate in this study because the findings drawn from the case study on NEC will be used to inform other environmental CBOs. The study adopted the approach of letting the data speak in order to identify themes from the data.

3.7 DATA MANAGEMENT

According to Wolfe (1992, p. 293), without a clear working scheme, data can be easily “miscoded, mislabeled, mislinked and mislaid”. Hence a data management system should be designed prior to actual data collection.

Data was managed through different techniques. In some cases challenges were experienced and the techniques were modified. For example, electronic management of data proved to be very tricky; hence, I moved to the manual file system, which I found more manageable.

I ended up with three lever arch files of data. The first file was indexed as: Data analysis and Representation. This file was divided into Document analysis, Observations and Interviews. All the raw data obtained using these techniques were filed here. This meant that all documents that

were analyzed were in the Document sub-division. The color allocated to documents analyzed was blue. Documents were labeled as DOC 01 to DOC 15 on blue self-adhesive labels, pasted on the right-hand corner. For example, DOC 06 means that it is the sixth document analyzed. This facilitated easy allocation of documents throughout the study.

All interview transcriptions were in the Interview sub-division. All were labeled with a yellow self-adhesive label, which was pasted on the right-hand corner. Interviews were labeled INT 01 to INT 10. INT stands for interview and the number represents the sequence of that interview, for example, INT 06 means this was the sixth interview to take place. All participants, NEC members, educators, the stakeholder, funder and community member were referred to as INT. Thus their positions were not considered but all were treated the same.

All observation field notes and evidence were filed in their respective sub-division. All were labeled according to their actual dates. Observation field notes were labeled with a pink self-adhesive label, pasted on the right-hand corner. Observation notes were labeled OBS 01 to OBS 10. OBS stands for observation and the number represents the sequence in which the observations took place. For example OBS 06 means that it was the sixth observation.

Another lever arch file was indexed B: Theoretical Frameworks. This file contained information relating to the study's theoretical, conceptual and methodological frameworks. This file contained three subdivisions that cover general interpretive notes, perspectives on the organization as a community of practice and finally, insights on social learning.

The last file was indexed C: All chapters. Here I kept the latest hard copies of all chapters, from chapter 1 to 6.

I had two separate memory sticks that were updated weekly. Both had a folder entitled: Research. All my research chapters were kept here. I once misplaced my memory stick and therefore saw the need for two.

Appendices were kept separately. All were labeled according to their sequence of appearance. For example appendix 3 means that it is the third appendix. This kept me on track and facilitated easy management. All appendices are found at the end of the dissertation. Tables were also labeled according to the section in which they appear. They are placed within the text and not at the end of the dissertation like the appendices.

3.8 RESEARCH ETHICS

Ethics is defined as a set of widely accepted moral principles that offer or provide rules for, and set behavioral expectations of, the correct behavior towards experimental subjects or respondents, other researchers, assistants and students (Strydom and De Vos, 2002). The

researcher took Bassey's (1999) three ethical values into consideration, namely, respect for persons, respect for truth and respect for democratic values.

I respected all the people involved by informing them about the aim, purpose, findings and potential consequences of participating in the research. The reasons for the research were made very clear to all the participants as was the reason for selecting NEC. Participants were respected for providing the data and owning that data. Before the interviews, the participants were advised of their rights, including the right to remain anonymous, to withdraw and not to answer any particular person or question (Terre-Blanche and Durrheim, 1999). All participants indicated that they were comfortable with their names being used in the study. Thus, no pseudonyms are used in this report. The participants were also assured that the findings would be disseminated in a responsible manner so as to ensure that no harm or distress would be caused to any participant. They were also informed that their participation was voluntary. The data was treated with appropriate confidentiality and anonymity to protect participants. Permission was sought to take photos and to record the interviews. A letter requesting permission to conduct this study was forwarded to NEC addressed to the chairperson (Appendix 1). Another letter was addressed to school principals, and the funder and stakeholder. The signed consent letters were kept in the file. See appendix 3 for a letter from a school granting permission to conduct the research. Permission was freely granted, perhaps because the researcher was known to all of the participants. I therefore asked to be introduced as the researcher since I was known as an environmental extension officer. The participants were also informed that they were free to use isiZulu or English as a medium of communication.

Respect for the truth was achieved through being truthful in data collection and analysis and in reporting on the findings. The theoretical framework was used as a tool to achieve this truth. This was supported by methods like triangulation. Physical evidence such as pictures, tape recorded data, and written data (transcripts) were all evidence of respecting the truth. Democracy was respected in this study. The researcher asked questions freely and gave and received information freely in order to write this dissertation. Similarly, the respondents had the democratic right to participate and were not forced to share their knowledge. I respected participants' time schedules, especially in schools so as to avoid disturbing teaching and learning.

3.9 VALIDITY AND TRUSTWORTHINESS

The interpretive approach typically claims that reality is socially constructed by continuous negotiations between people about the very nature of that reality. Through this social negotiation the researcher collects quality data based on individual experiences. This research study ensured validity and trustworthiness by using multiple sources of information, including document analysis, observations and face-to-face semi-structured interviews. Cohen et.al. (2000) define triangulation of data as the use of at least two appropriate methods to verify the same

information, as was the case in this study. Bassey (1999) notes that sufficient triangulation is the yardstick for the trustworthiness of a case study. Yin (2003, p. 99) adds that, “triangulation essentially provides multiple measures of the same phenomenon”.

Triangulation allowed me to develop thick descriptions from the data, as will be shown in Chapter 4. These rich descriptions of the participants and the context facilitated the validity of this study.

As noted above, validity and trustworthiness were achieved through the use of multiple sources of evidence and the establishment of a chain of evidence. During observations, I took pictures of the activities taking place. During the interviews, I always introduced myself, stated the date then start recording. After the interviews, the transcriptions were given to each participant to verify the accuracy of interpretation and to reflect on what had been said.

Maxwell (1992) states, that, theoretical validity can be achieved by working consistently with theories in relation to data, findings and explanations. The theories were used as lenses throughout the study in order to achieve validity. I observed NEC in their natural settings in order to arrive at an understanding and interpretation of how the organization created and maintained their social world (interpretive approach), which lead to their sustainable practices. Again, the community of practice characteristics identified by Wenger (1998) was used as a tool, which led to NEC being described as a community of practice. Social learning theory was used as a lens to determine whether NEC’s learning activities were social learning and how it contributes to the sustainability of environmental projects.

I relied on reflexivity to promote validity by explaining my role as the researcher (Lather, 1986). The term reflexivity is often used for the unavoidable mutual influence of the research participants and the researcher. Again it is important to ensure that the researcher is not biased by clarifying their assumptions, views and theoretical orientation before starting the research as one strategy to ensure validity (Creswell et al., 2007).

Presenting the chain of evidence contributes to the trustworthiness of the analysis. In qualitative research, reliability, “means producing results that can be trusted and establishing findings that are meaningful and interesting to the reader” (Trauth, 1997, p. 242). I was in the field for a full year. This intensive, long-term involvement provided more complete data about the situation. This helped me to gain what Lather (1986, p. 57) refers to as “movement from the status of stranger to friend and thus be able to gather personal knowledge more easily”. This also enabled me to see this co-operative in its natural settings, and to rule out spurious associations and premature findings.

I use direct quotations in the text to illustrate some key points. Thus, some of the views of research participants are presented in their original form, using their own tone and mood. In some cases, I use first person reporting (I), to assert my position as the true author of this research study, taking responsibility for all the actions and views presented. According to Popper (1976), the researcher is not a neutral observer but an integral part of the social processes that lead to the generation of knowledge. Observations were used to gather data over an extended period in order to increase validity.

Through analytical memos I was able to trace back to the original source of data, which provided a data trail that improved the quality and trustworthiness of the study. This also promoted a prolonged engagement with the data source which according to Bassey (1999) is necessary for the trustworthiness of a case study.

3.7 CONCLUSION

This chapter discussed the methodological framework that supported and informed my research. The research method was described as a case study and the reasons for adopting this method were discussed. The research techniques used to generate data were discussed, as well as how these complemented each other in the process of answering the research question. This chapter also highlighted the data analysis methods and data management strategies that were used in this study, and their significant roles. The development of coding techniques, themes and sub-themes was also discussed.

The following chapter presents the data as analyzed and compiled in different analytical memos using the themes identified to answer the research question.

CHAPTER 4: PRESENTATION OF RESEARCH DATA

4.1 INTRODUCTION

As noted in Chapter 1, this research study focused on a successful CBO, NEC, after most other initiatives had met with very little success. This CBO has successfully implemented, managed and reported numerous school and community environmental projects that have produced local benefits. This chapter reports on the data generated to identify the factors contributing to the success of the organization and its programs. The main purpose of the investigation was to determine how NEC successfully implemented and managed its projects to produce outcomes that contributed to local change and sustainable environmental activities.

This chapter presents an analysis of the data on this case of a successful CBO. Documents, interviews and observation data were analyzed as outlined in Chapter 3. Themes that contributed to the successful operation of the organization were identified, coded and developed into analytical memos that were used to present the case of the successful co-operative organization in this chapter. The following key themes emerged and were examined:

- Partnerships and networking
- Community involvement processes
- Supportive learning interactions with schools
- Trust and the development of mutual understanding
- Project management practice i.e., planning practice, monitoring and evaluation practice, training provision and financial management practice.

Much of the data generation was undertaken as a careful audit of the activities documented in reports with observations and interviews to track what had happened and how the organization was successfully managed.

4.2. Partnerships and networking

The manner in which partnership agreements and networking were established seems to have contributed to the initial success of the co-operative. This section reports on the data that shows how partnerships and networking contributed to the success of NEC.

NEC has functional partnerships with different national and provincial government departments, the local municipality and environmental stakeholders in the community.

This section on partnerships is divided into three categories, i.e., project funding partnerships, community stakeholder partnerships and supporting NGOs.

4.2.1. Project funding partnerships

This section presents the data on partners which fund NEC. Funding in this case is not limited to finance but includes cases where partners provide resources to be used in projects.

Two documents (Document 4 and 6) mentioned the National Department of Agriculture, Forestry and Fisheries (DAFF) as a partner of NEC. In one document it is stated that this department did a presentation to the community during a community greening initiative-cleanup event and more than 600 indigenous trees were donated by the department for 300 Ntuzuma households. The document also states that each household was given one indigenous tree and one fruit tree. The greening project aimed to green the area, prevent soil erosion and alleviate poverty. In one interview this department (DAFF), was cited as a member of NEC's Stakeholder Forum which had funded the greening project. During OBS 03, I witness DAFF giving indigenous trees to schools that were participating in an NEC event. All four schools were given 10 indigenous trees and 10 fruit trees. The local councillor also planted a tree that was sponsored by the DAFF.

Indalo Yethu, which is an environmental agent for the National Department of Environmental Affairs, sponsored this co-operative with an indigenous nursery, office building, a fence for the garden, several garden tools, and a generator and water tank (INTs 01, 02, 04 and 08). During the Arbor planning meeting, the chairperson confirmed that the nursery was sponsored by Indalo Yethu which also paid for their three-day plant propagation training course in Silverglen Nature Reserve (OBS 01). The funds that the co-operative gets from selling indigenous plants and vegetables are deposited in their account (INT 01). None of the documents mentions Indalo Yethu as a partner, but interviews and observation confirmed this partnership.

Working for Water, an agent of the National Department of Water Affairs awarded NEC a project to remove alien invasive plants and rehabilitation of a local stream. In terms of the contract for this 2011/ 2012 project, each member was given a stipend of R73 a day. During INT 04, it was stated that:

“This co-operative get support from other organizations, which include Working for Water, which gave us the contract of clearing local water catchment and removing alien plants.”

This was further confirmed during INT 09 with a Working for Water community liaison officer who said:

“Working for Water has a contract with members of NEC to rehabilitate local water catchment through removing and controlling alien invasive plants. All members signed a contract where they have to work from 07:30 am to 2pm, and are given a stipend of R73 a day. This amount is deposited into each member's bank account.”

During OBS 01, the same community liaison officer was part of the meeting. He expressed his appreciation of the co-operative's voluntary work and informed stakeholders that the co-operative was contracted for three months in 2011, with each member receiving R73 a day. He added that for 2012, he was waiting for approval of the budget but hoped that the contract would be renewed.

NEC participated in the Provincial Women for Environment Competition organized by the National Department of Environmental Affairs. In the 2011/12 competition, NEC was the first runner-up in the Environmental Education and Awareness category and received a prize of R30 000, which the co-operative said they had received. They planned to buy a marquee that they would hire to people to raise funds (OBS 05). In INT 08, the respondent mentioned that NEC was part of this competition and confirmed that they were the first runner-up under the Education and Awareness category in KwaZulu-Natal. No document confirmed this competition, but in Doc 05, the organizer of the competition, the National Department of Environmental Affairs' official is referred to.

The KwaZulu-Natal Department of Agriculture is mentioned in DOCs 05, 06 and 11 as an active partner. The newspaper article states that this department provides support in the form of seeds and garden tools that the co-operative uses in their school and community garden initiative (DOC 11). I was fortunate in that one day when I was observing (OBS 04) an official from this department came to talk to the members in the gardens. I witnessed her checking crops, and offering agricultural tips and advice during this monitoring visit. During this observation, this official informed NEC that their request for Ntuzuma Farmers' Training (OBS 07) was successful and that the department was going to facilitate the workshop. I also witnessed the same department giving the community different types of seeds during an event organized by NEC (OBS 03). Community members, including the ward councillor were very happy to receive free seed.

The KwaZulu-Natal Department of Environmental Affairs also has a partnership with NEC. The department is mentioned in DOC 05 as a partner and stakeholder. A newspaper article (DOC 10) has a picture of the co-operative receiving protective clothing from this department. Through this partnership, this department has trained NEC on plant propagation, alien plants, waste management and permaculture. Some of these are accredited courses, for which "*our department pays*" (INT 08). Certificates awarded on completion of these courses are supporting documents for DOC 13 (proposal). The same department assists the co-operative with its administrative work. During OBS 01, 02, 03, 05 and 06 the attendance register; agenda and invitations were circulated by this department in support of the co-operative. When asked why, the department official said "*beside that they do not have facilities; we believe that it is our responsibility to support them since our department is the custodian of the environment*". The department was mentioned during INT 01 as the "*supporting department because they always give our guests refreshments when we are conducting awareness campaigns, and last year they paid R15 000 for*

the marquee we used on our successful community and schools greening-arbor campaign we had at Muziwabantu Primary School”.

There is also a letter that was written by the municipality to First National Bank. The document confirmed that NEC had been engaged by eThekweni Municipality from 2004 (DOC 08). This letter was used by NEC to open a bank account. Further to that, there is another letter from the ward councillor, confirming that he knows the co-operative and has no objection (DOC 07). The Minutes from Muziwabantu Primary (DOC 04), state that *“the ward councillor was invited....”* In one observation, the ward councillor sent his representative who assisted the co-operative to obtain a tractor (OBS 05), and in another two observations, the ward councillor was present; he offered words of encouragement to NEC and noted that he appreciated the work that they did to promote a healthy environment (OBS 03 and 06). Because this co-operative works closely with the municipality, it was selected to compete in the “Mayoral Awards: Biodiversity Category Nominee” (DOC 12).

The data further shows that Durban Solid Waste (DSW) had a functional partnership with NEC. A proposal document (DOC 15) that is used to request funds, shows that the co-operative is supported by DSW when they undertake “local door to door litter and clean up campaign”. This document has pictures of DSW officials and cars which were present in one campaign. In another document (DOC 06), a DSW official said *“DSW will give full support e.g. providing bus as a means of transporting learners to the awareness campaign”*. During INT 08, when asked to list the members of the NEC Stakeholder Forum that had financially supported NEC, DSW was mentioned. This was further confirmed in two observations, 03 and 06, when DSW came with waste collection bags, relevant clean up equipment and a truck to transport collected waste to the landfill site which is more than 50 km from the area that was cleaned. Both these events were planned and organized by NEC.

Data from DOCs 02 and 05 shows that, NEC works with Parks and Recreation. Document 02 states that Parks and Recreation did a presentation during an NEC meeting while document 05 states that *“partnership has been established win INK-URP, eThekweni Parks and Recreation...”* During INTs 01, 02, 03 and 04, Parks and Recreation was mentioned as the department that *“support us with garden tools, including the tractor”*, while during observation 04, a tractor with its driver from Parks and Recreation was leveling the open space that was going to be used for gardens. In observation 02, the truck that transported and removed alien plants was from Parks and Recreation. Furthermore, during observation 03 Parks and Recreation delivered equipment for the clean-up campaign and for the removal of alien plants.

4.2.2 Community stakeholder partnerships

In this section, I analyze data that shows that NEC also partners with organizations that do not provide funding or other resources. Nevertheless, such partners are important since they contribute to the success story.

One of the non-funder partners is Bonisanani Primary School. The school has a document titled “Confirmation of Partnership of Bonisanani and Ntuzuma Co-operative on Stream Cleaning Campaign” (DOC 01). The partnership was also confirmed during INT 07, where the respondent from the same school said:

“Our school has been exposed to other organizations. For example in 2010, our school was invited to do a presentation of this partnership in Limpopo. I did a 20 slide presentation, showing how we work with this co-operative. Again we get to work with big companies, such as Coca Cola through this co-operative.”

Twenty learners from the school were observed participating in the event organized by NEC on 5 June 2012, World Environment Day. This partnership is mentioned in document 11, a newspaper article, where the same school principal was quoted as saying:

“In the streams clean up campaigns, learners get to see animals that they learn about in Natural Science and even bringing them to classes and are used for developing lessons since we do not have laboratories.”

Asked about the benefits of working with NEC, another educator said:

“Working with this co-operative expose Muziwabantu Primary to other stakeholders who assist for example excursions are planned where learners will see all the practicals and so we benefits, for example Department of Agric gives our schools and community seeds and garden tools, Eskom gives learners energy saving bulbs, Dep of Enviro, hand over incentives to learners for example, bags which are used by disadvantaged learners. Woolworths, Spar and ABI sponsoring and supporting schools for other environmental education activities, for example refreshments. These companies support Muziwabantu Primary School because it works with Ntuzuma Co-operative. Even the provincial Minister of Environmental Affairs visited our school because of this partnership” (INT 05).

The same school was observed (OBS 03) participating in World Environment Day that was organized by NEC. The principal of Muziwabantu stated that the partnership has assisted the school to work with the community in environmental activities (INT 05).

Another school, Halalisa Primary School was named as one of the schools that NEC helped to establish a vegetable garden in the newspaper article headlined “Ntuzuma Environmental Co-operative celebrating 05 successful years” (DOC 10). Many other schools were cited as benefiting from the “One School, One Garden Initiative”, where this co-operative annually assists schools to establish vegetable gardens for disadvantaged learners. According to the Halalisa educator, as much as they feed learners, educators also use gardens to develop their curriculum.

“ for example in Maths, when doing measurements, learners go to the gardens and do spacing measurement, even learning about shapes.... ”(INT 06).

Dumehlezi High School sent a letter of appreciation to NEC (DOC 09) for cleaning up their school premises during the school holidays. NEC uses this school’s premises for Stakeholder Forum meetings, and workshops. I witnessed this when attending a meeting (OBS 05) in one of the classrooms; at that meeting a member of the School Governing Body agreed that NEC could hold a workshop in another, bigger classroom.

According to the NEC founder, he established this co-operative in response to the government’s call for community involvement and for schools, communities and government departments to work together. The NEC Stakeholder Forum was formed because *“we believe that working together we can do more”*(INT 04). When I attended a forum meeting, many stakeholders were present and contributed to the meeting (OBS 01).

The above cases from documents, interviews and observations revealed functional partnerships with NEC and how these funding and non-funding partnerships contribute to the success of this co-operative and their partners.

4.2.3. Networking with NGOs

It was also interesting to analyze the few documents that included data on networking. These provided evidence that networking is another factor that contributes to NEC’s success in sustaining their environmental projects. The documents show that NEC not only works with their partners and stakeholders but also links and communicates with people and organizations at local, national and/or international level. There was a certificate that was awarded to the founder of this co-operative, who attended an NGO conference in Tanzania. This was an international conference where *“NGOs were sharing strategies”* (INT 04).

There was also a document that showed that NEC networks with other local CBOs like Bambithuba Co-operative (Doc 06). On 1 August 2012 this co-operative was observed in the nursery with NEC sharing knowledge about indigenous plants and propagation skills. There are groups of small farmers in their area of operation and NEC organized a farmers’ workshop to empower the farmers; this was observed when the agriculture extension officer approved the workshop (OBS 04), and I later observed this workshop on 21 July 2012. It was during this observation that the purpose was stated: *“Our goal is to establish Ntuzuma Farmers’ Association as a platform for all Ntuzuma farmers to network and share ideas”*. The data shows that this co-operative invites different community forums to events. I witnessed this during the commemoration of World Environment Day and a clean-up campaign. At both events the opening prayer was offered by the chairperson of a local faith-based forum called Amabandla Onke (All Churches).

Document 05 states that NEC was shortlisted for the Imagine Durban Project. This is an initiative of the Canadian government and the Plus Networking Program for sustainable development. However, nothing was said of this networking during the interviews and nothing was observed.

During two observations, 01 and 05, Geosphere, an independent NGO, was present. During observation 05, this organization assisted the co-operative by calling on the Agriculture Management Unit to conduct a workshop for NEC. No documents mentioned this organization and none of the respondents mentioned Geosphere.

4.3 Community involvement processes

In this section I report on the data on NEC involving the community and the benefits of this involvement.

The data shows that community members in Ntuzuma Township are invited to attend NEC meetings. Six community members were present at the Arbor planning meeting (OBS 05). Some contributed to the meeting; for example, it is stated that, Mr. Msweli from E section was concerned about bushes and Sbu, also a community member reported on the bad smell coming from the stream. During World Environment Day, I counted about 500 community members (OBS 03). More than 3 000 community members attended the NEC event to raise awareness of COP 17, which was also attended by the provincial Minister of Environmental Affairs (INT 08).

Home visits are also sometimes made to community members to raise awareness of environmental issues. This was mentioned by the respondent in INT 10 who stated that *“they sometimes visit us in our homes to encourage us not to dump litter....”* During observation 06, I observed community members participating in the cleanup activity. Some were collecting waste, while others were talking to the passers-by, educating them about waste minimization and management.

The number of community and family gardens in the township has increased as a result of the handover of seeds, removal of alien invasive plants and the good quality of the water. Mr. Khumalo is evidence of this (DOC 13). He has a beautiful garden. It is stated in this document that Mr. Khumalo established his garden only after NEC cleared the area by removing alien invasive plants. He is using water from the stream that is cleaned by NEC. The whole community has benefitted because the quality of water has improved. The quality of water was endorsed during observation 01 at a Stakeholder Forum, where an environmental health practitioner reported that the quality of water had improved and was safe for watering gardens. The document quote Mr. Khumalo as saying, *“Kubalulekile ukuba nengadi ekhaya”* (It is important to have a family garden). It was mentioned in the Mayoral Award document that *“clearing of alien plants has encouraged community members to start their gardens”*. In INT 10, it was noted that many households had started vegetable gardens because NEC organizes free seed. This was also acknowledged by the ward councillor on World Environment Day, where all

community members present received seeds organized by NEC from the Department of Agriculture (OBS 03). This has an impact in terms of alleviating hunger and improved health as the community reaps fresh vegetables from their gardens.

Document 05 lists NEC's objectives, one of which is to train community members in waste management and recycling methods. Although no data was gathered on such training during the interviews, a respondent stated that the NEC is *"teaching us the community about the environment, like litter, planting trees, vegetable gardens and cutting bushes"* (INT 10). This respondent added that when she visited NEC nursery, *"they taught me some medicinal stuff that I did not know"*. During an interview, the Working for Water community liaison officer stated that the organization funds community projects that *"work with the community to raise awareness and educate the public about the threats posed by alien plants and challenges in dealing with alien plants"* (INT 09). I was fortunate to witness NEC accomplishing its objective of training community members in waste management and recycling when they conducted a clean-up campaign. On this day, NEC organized the Durban Solid Waste Educational Bus, which is used by the municipality to promote waste management and waste minimization; it also displays recycled materials. The community went inside the bus and environmental officers educated them about waste management and minimization. While others were in the bus, some community members were collecting litter in the area. The community benefitted since they were educated and their area was litter-free. Even the ward councillor was collecting litter (OBS 06). A formal training was observed (OBS 07) where a professional agriculture extension officer trained Ntuzuma farmers; this training was also organized by NEC.

There is data that shows that the NEC project is about *"...providing employment to our communities"* and *"the employees will be paid salaries"* (DOC 03). All members of this co-operative were contracted to Working for Water, and the official confirmed that *"a stipend of R73 a day"* was agreed with NEC in 2011 and 2012 (INT 09). Besides NEC members' involvement in this poverty alleviation project, other community members who are not members were once employed by the local municipality to work with NEC to remove alien plants. These 60 community members were temporarily employed by the municipality through NEC (DOC 05). During INT 04 it was stated that *"Once we created jobs together with the municipality, when we were removing alien plants. Because we were few then, the municipality requested us to select community members to be part of the project"*. This alleviated poverty in the community. During observation 01, Working for Water informed the Stakeholder Forum (26 April 2012) that the contract for 2012 had not been renewed since it was towards the end of their financial year, and promised NEC that as soon as the 2012 budget was confirmed the contract would be renewed. This shows that through working with the community, NEC also benefits.

One respondent (INT 02) mentioned that some members of the community assist because they want to live in a clean environment. During observation 02, the researcher witnessed community members helping NEC to remove alien invasive plants.

The data from the interviews shows that NEC involves the community in its environmental projects. Three respondents (INTs 01, 02, and 04) stated, “*Yes we do work with the community*”. This was endorsed by educators who have witnessed NEC working with the community. For example one educator said “*...community and the co-operative cleaned and cut down the bushes*”.

The data also shows that schools are now working closely with their communities. One educator said, “*The reason Muziwabantu Primary School joined this co-operative includes building the relationship between our school and our community*”. Furthermore, observations 02, 03, 06, and 07 confirmed that NEC involves the community in their environmental projects.

It was interesting that one respondent said that, although they do involve the community there are still challenges “*because some are jealous of the achievements*” (INT 03). This is in line with a statement made during observation 05 that the garden fence had been stolen and this led to vegetables being stolen and some plants in the nursery being destroyed.

The section reflects the relationship between NEC and the local community and how this contributes to environmental projects that are effective and sustainable.

4.4. Supportive learning interactions with schools

This section presents the data on how NEC interacts with schools to promote learning and success.

The data revealed that, NEC’s stream rehabilitation project enhanced school learning. A newspaper article (DOC 11) states that “*Learners witness biodiversity that they learn about in Natural Science*”. A principal noted during INT 07 that, “*learners brought back crabs which were used during Natural Science...this assist since we do not have laboratory for experiments. This contributed to the curriculum*”. Some schools arrange for their learners to visit the stream to witness biodiversity (INT 01).

Progress in learning is also seen through the practical work that is encouraged by NEC. For example, DOC 15 shows NEC and local schools cleaning the stream and planting trees, while in DOC 06, the school principal mentions that their school established vegetable gardens and planted trees. Again, the newspaper article in DOC 11 notes, that five schools: Dumehlezi, Ntuzuma, Halalisa, Damleny and Bonisanani, had established gardens as a result of the partnership with NEC. These schools were also mentioned by a respondent during INT 03 who added Muziwabantu and Sondelani Schools to the list. This initiative assists disadvantaged learners and some schools sell vegetables and use the income to purchase garden tools (INT 07).

Two schools mentioned that NEC organized for ESKOM to come and educate their learners about energy and gave learners energy saving bulbs (INTs 05, 06), which benefitted disadvantaged households (INT 05). All the educators that were interviewed were happy that

through partnering with NEC, their schools have functional vegetable gardens (INTs 05, 06 and 07). These gardens not only provide vegetables but are also used during formal learning (INT 06). During INT 05, the respondent said that *“learners learn through practicals”*. It was observed (OBS 03) that on World Environment Day, learners collected waste and were shouting *“Down with unhealthy environment, Forward with Clean Environment”*. They sold their garden products to the community on the same day and later planted a few indigenous trees. I observed that even the entertainment items from schools were environment-related, some with the theme of the World Environment Day and others encouraging the judicious use of natural resources like water and energy. On the same day, departments talked to the learners about environmental issues and questions were asked to assess whether the learners understood the presentations. Learners also asked questions and were very active. During this non-formal observation, I saw learning taking place outside the classroom facilitated by an outside organization.

Document 12 mentions that one of the school projects established in partnership with NEC was a waste control and recycling project. Another document included a picture of learners re-using cans in their classroom learning activity (DOC 13). In INT 05, the respondent noted that *“learners now know that waste should go to the bins, so we have a clean school”*. Another educator said that their school is also involved in a recycling project (INT 06). During the clean-up campaign, learners collected cans for their school project (OBS 03). This benefits schools since recycling is continuous and sustainable, and contributes to school funds.

Schools that work with NEC are exposed to environmental programs which are now part of the school management plan, for example the environmental school competition organized by WESSA (INT 07), the Siyazilimela School Garden Competition, (INT 06), and school debating and environmental clubs (INT 05). Another educator said *“we get to work with big companies like Coca Cola, who came to our school and gave presentation on the importance of recycling”* (INT 07). Three educators that were interviewed mentioned that their schools are Eco Schools. One said, *“because of this co-operative, the school is now working with the community, especially school environmental club”* (INT 05). During INT 08, a Senior Environmental Officer: Education and Awareness, mentioned that NEC established and is responsible for the School Cluster Forum, *“where environmental education is promoted formal and non-formal, even integrating EE into the curriculum”*. During Observation 05 an educator introduced herself as the representative of this cluster.

In conclusion, the data presented above shows how learning interaction between NEC and schools produces change and success.

4.5. Trust and the development of mutual understanding

The data that I present here shows how mutual understanding within NEC and with external agents contributes to sustaining NEC's environmental projects.

4.5.1 Mutual understanding within NEC

This co-operative has a leader who has a vision as stated in DOC 03. One respondent said, "...*the chairperson of the group is very active*"(INT 03) and the chairperson himself said, "*As the chairperson, I make it a point that I motivate them*"(INT 04). I observed him thanking members that removed alien plants in one school (OBS 02).

Document 03 notes that NEC is a democratic organization. All NEC members that were interviewed have assigned roles; one was the secretary of the co-operative (INT 01), one the handcraft co-ordinator (INT 02) and one the nursery co-ordinator (INT 03). When I observed (OBS 05) the Arbor Planning meeting, the nursery co-ordinator chaired the meeting, and when I visited their gardens I had to report to the garden co-ordinator who informed all members about my visit. I noticed that when people were buying vegetables from gardens, only one person was responsible for collecting money. I also observed that other members know and understand their roles because they did not collect money (OBS 04).

During OBS 02, it was very clear that NEC is organized. While more than 30 people were removing alien invasive plants, including non-members, all the members were divided into groups. Some were cutting and others were collecting to take to the truck. I even saw one member counting the equipment before the activity and at the end of the activity the same person, collected all equipment and counted it again.

During observation 08, some members were collecting water while others were transplanting plants. When they were told that they were to organize a farmers' workshop I witnessed them allocating responsibilities, for example, who was going to inform the ward councillor. One member was responsible for booking the community hall, and two were given the task of inviting all the local farmers (OBS 04). What was interesting for me was that in one observation (OBS 05) the two members present did not take a decision at the meeting, but said "*we will take your suggestions to all the members of the co-operative, then we will inform the forum about our decision*" (INT 05). The chairperson was not present at this meeting.

All the members of this co-operative are aware that all their projects don't have a budget. In DOC 06, it is stated more than twice that "...*there is no funding in these projects...*" This was confirmed by the respondents in INTs 03, 05 and 08. One said, "*We love what we are doing, although there is no money*". During observation 02, members were singing, laughing and enjoying the activity.

One member joined NEC for social reasons to meet other local women (INT 01), while others did so to support one another and to promote co-operative activities (INT 02). During observation 04, members of the co-operative finished their activity and then all went and sat under a tree where they shared their lunch and talked about social and personal issues, which had nothing to do with the co-operative.

A newspaper article with the headline "*Ntuzuma Co-op celebrated its 05 years of success*" states that NEC is committed and that there is co-operation among its members. A municipal official is quoted as saying that other co-operatives can learn from NEC since it is rare to find a CBO that is able to sustain its projects. Support among NEC members was also mentioned as a positive contribution (DOC 03, INT 02, and OBS 04).

Documents 03 and 11 and INTs 01, 02 and 04 note that co-operation among the members is what makes this co-operative successful. The data shows that NEC is progressing because its members are committed and dedicated (DOCs 03 and 11 and INT 07). Document 03 states that people with a "passion" qualify to be members and in INT 03 a member said, "*We love what we are doing*", while document 05 notes the "*voluntary basis in the interest of the environment*". One educator said that all NEC members are "*enviro-friendly themselves*". This statement is in line with what is contained in document 03 (qualities of members) where it is stated that members should "*care for the environment*". In document 03, there is a section which states that the co-operative will be successful if "*we have trust between members*". In INT 03, the respondent said, "*We trust each other*". The level of trust, refraining from gossip and knowing one another were displayed when members shared their lunch and discussed personal and social issues (INT 01). The data shows that members are "*honest and reliable*" (INT 06) when performing their roles and responsibilities within the group (OBS 02, 04, and 08).

Under this theme, much was said about mutual understanding, but I was most struck by the response from the oldest member who said, "*The group does not have money which can lead to corruption of funds and bad interpersonal relationship*" (INT 01).

4.5.2 NEC mutual understanding with external agents

Document 03 states that NEC holds monthly meetings where they discuss schedules; time frames, and payment as well as any support required. This document does not specify whether these meetings are only for NEC or also involve other stakeholders. However, in INT 07, the respondent said that even if stakeholders did not attend meetings, NEC ensures that they inform them about the outcomes of the meeting. Two meetings were observed and both opened with a prayer thanking God for the supportive stakeholders that were present (OBS 01 and 05). The chairperson also ensured that all present were aware of the reason for calling the meeting. This was supported by DOC 06, which clearly has the item "the purpose of the meeting". I also observed that stakeholders use this platform to report on and share local environmental issues. Challenges are discussed and where possible stakeholders support and/or give advice. For

example, the ward councillor representative promised to request a tractor to support NEC in their gardens (OBS 01). During OBS 01, the National Department of Agriculture, Fisheries and Forestry advised NEC to propagate the specific Arbor Week tree of the year since it becomes scarce during Arbor month. It was also evident that NEC invites some community members and representatives of surrounding schools to be part of their meetings (OBS 05, Doc 06, INTs 05 and 10).

Local political leaders have no objection to this co-operative (DOC 07). The ward councillor attended two events that I observed and acknowledged its work. He even takes part in their activities. I saw him collecting waste with the rest of the participants (OBS 06). He gave a speech, thanking the co-operative and schools for their wonderful work and encouraging NEC to continue to work with schools and the community (OBS 03). He could not attend one meeting that I observed, but sent his representative (OBS 01).

This co-operative is sensitive to the language that is used in their activities. All the documents that I analyzed were in English, except for two local newspaper articles which were in isiZulu. During observations 01 and 05, both English and isiZulu were used since they involved stakeholders who don't understand isiZulu, while others could not understand English. However, other events were in isiZulu since these were for the community (OBS 02, 03, and 06). The farmers' workshop was conducted in isiZulu since all the participants were Zulu speakers(OBS 07).

Sharing ideas was another strategy contributing to NEC's success as indicated in INTs 02, 04, and 07 and OBS 01 and 05. Document 03 stated that meetings will be used to share ideas. Two respondents acknowledged that they do confront challenges, but they overcome them through communication (INTs 01, and 04). Members communicate well among themselves and with other organizations; "*they shout for help*"(INT 07). No documents mentioned any strategies to deal with challenges or problems.

One educator said that she thinks this co-operative is successful because it also cares about the social well-being of people, such as addressing crime, drug abuse and promoting peace in the neighborhood. She added that they sometimes come to their schools with the South African Police Service (SAPS) to address learners about social issues (INT 06). Document 06 shows that SAPS was part of the meeting and spoke about their role in ensuring a healthy and safe environment. Document 13 includes a picture of SAPS participating in the clean-up. Police officers were also present during observation 03.

4.6 Project management practices

This section presents the data on project management skills, i.e., planning, monitoring and evaluation, training and financial skills. I show how NEC develops these skills and in turn how these skills contribute to sustaining the environmental project.

4.6.1 Planning practice

Data from document 03 shows that the co-operative *“plans to employ the community”* while the same document states that *“we have monthly meeting, discussing schedules, time frames, payment and support”*. Document 05 is evidence of a planning meeting where NEC stakeholders were planning their Arbor week activities.

The involvement of different stakeholders during planning meetings was confirmed during many interviews. For example, in INT 01 the respondent stated that, *“...the chairperson invites different stakeholders to be part of the planning meetings.”*

Likewise, an educator said, *“What I like was many planning meeting were held with different stakeholders”*; she added that these were *“planning meetings with a vision”*. This educator was also grateful that *“schools are invited to their planning meeting...”* During Observation 05, the educator that was present in the planning meeting was tasked to organize a school cluster activity.

In INTs 01, 02, 03, 04, and 08, the respondents said that planning mostly takes the form of meetings. In INT 08, the respondent stated that NEC also plans using environmental calendar days and added, *“Yes, we do take part in their planning”*. The respondent in INT 04 noted that NEC divides activities into groups. Planning through meetings, using calendar days and dividing activities into groups were also observed. I observed planning for the farmers’ workshop (OBS 04) and the Arbor Week Planning meeting (OBS 05).

“I think this co-operative is good in planning. I have seen them planning many of their community and schools activities, where they invite other stakeholders to contribute to the planning. I further think that their Stakeholder Forum idea is working for them since they use this platform to plan their activities. Besides that, the group itself meets regularly to plan their activities, both through formal and informal meetings and discussions. In other cases their planning also recognizes the local political leader, to have a say and as a buy-in strategy, as early as the planning stage”(INT 09).

An NEC member (INT 01) said their planning also depends on needs. She noted, for example, that many traditional healers live in the area; hence, they plan to grow medicinal plants in their nursery.

However, in INT 02, the respondent said, *“We don’t plan. But stakeholders assist with relevant support”* while in INT 03 it was said, *“Our planning is still poor, we still need guidance. For example, we still don’t know how we are going to further utilize the land that we have fenced since it is big.”* During observation 02 the NEC chairperson mentioned that they plan to start an orchard where alien plants were removed as a way of controlling and rehabilitating the area.

4.6.2 Monitoring and evaluation practice

The data shows that in INTs 01, 02 and 03, the respondents stated that NEC monitors their environmental project by dividing themselves into sub-groups. The garden sub-group visits the nursery sub-group and vice versa, to monitor progress.

Only two respondents, in INTs 03 and 08 said that NEC monitors through meetings. The latter said, *“We monitor through site visits and meetings”*. In INT 09, the funder stated that *“there are many ways we monitor NEC activities, such as unannounced site visits to check time worked as indicated in the time book, progress and other relevant issues. Monthly reports are submitted to us and we check the progress from those reports. In other cases we use meetings to monitor activities through sharing of information”*.

Monitoring through a site visit was observed during Observation 04, when an agricultural officer arrived unannounced to monitor the vegetable gardens. It was pointed out in INT 09 that they not only assess at the end of the project, but during the project, where they compare actual progress against planned progress through site visits, reports and meetings. They also assess if the project is in line with NEC’s vision and mission.

Only one document shows that NEC evaluates their environmental project, DOC 04, which is the Greening Project Evaluation meeting. This document clearly states that the purpose of the meeting was to evaluate the school greening project. It notes that other departments, including the ward councillor were invited. This was also pointed out by the respondents in INTs 01, 03, 05 and 08.

4.6.3. Training provision

Document 03 states that *“The Department of Agriculture supports the co-operative with training and new ways”*, and *“there will be a big need for refresher courses”*, while DOC 05 notes that the *“Co-operative has been trained in eradication methods by DAEA”*. These were the only documents with training data.

During INTs 01, 02, 03, 04, and 08 it was mentioned that this co-operative has attended many trainings and received many certificates, for example in Permaculture, Plant Propagation, Alien Plants, and Water Management and Minimization.

“Yes, there are many trainings, I even lost count of trainings and workshops facilitated for this co-operative” (INT 08). Stakeholders assist with training (INTs 01 and 08) or the co-operative requests training from stakeholders. The skills gained empower members and they use these skills even when the stakeholders are no longer with them (INT 04). The training that they receive also equips them to deal with many environmental issues, for example, the training they received from Parks and Environmental Affairs (INT 07).

The Working for Water representative (INT 09) stated that it is important that co-operative members are trained. He mentioned that “*credited and accredited courses attended by the co-operative are important, including workshops since capacity building and empowerment is very important*”. This is crucial in applying for funding. Working for Water also trains their contractors. NEC was trained by Working for Water in financial management, project management and business skills. While this was not advanced training, it provided a good foundation for sound project management. Such training also promotes mutual understanding between the funder and the co-operative (INT 09).

The funder (INT 09) further acknowledged that NEC has been trained by other environmental stakeholders and institutions in areas such as permaculture, alien plants, plant propagation, and waste management and minimization. According to the funder this, “*always alerts NEC on any environmental issues*”.

All the members attended a three-day accredited training on plant propagation and received certificates. This training was organized by Indalo Yethu (OBS 01). During OBS 04, an agriculture extension officer visited and informed the co-operative that their request for an Ntuzuma Farmers’ Workshop was successful. At another meeting, a member from the stakeholder forum called the Agriculture Management Unit to organize a workshop for all co-operative members to capacitate them on their fruit forestry proposal since they had access to sufficient land (OBS 05). NEC also organizes capacity building workshops for other community groups involved in local community garden projects (OBS 07).

From the data, it was evident that NEC has been exposed to training that contributes positively to their establishment and operation.

4.6.4 Financial management practice

In this section, I show how NEC managed to obtain funding for themselves and their environmental projects, and how they managed this money. Job creation is also examined.

Document 08 notes that the co-operative has a bank account and it is registered with SARS (registration number K6/3/9/3670). They manage their bank account by depositing R100 at the beginning of each year, to ensure that it is active (INTs 01, 02, and 03) since there is no guaranteed funding for their projects (DOC 05). On the other hand, DOC 03 talks of salaries and overtime payments, but no evidence was found to substantiate such payments.

This co-operative uses different methods to raise funds (INT 06). For example, they sell vegetables to the community then deposit the money into the account (INTs 01, and 02). During observation 01, it was mentioned that the co-operative is selling vegetables to the community and in observation 08 I witnessed community members buying vegetables and the money being collected by one person.

Another fundraising strategy is obtaining sponsors for particular events. One school event was sponsored by Coca Cola, Woolworths, local business people, and Unilever Brothers (INT 05). This was observed in the planning meeting (OBS 05), where a list of possible sponsors was noted and members were mandated to deliver letters to them. It was stressed that the chairperson should sign all the letters.

NEC also creates job opportunities for the community through their environmental projects. In INT 10, the respondent said, *“This co-operative is also not greedy, I remember once they employed some community members to assist them in removing alien plants. That was good because many of us do not work”*. This contributes to poverty alleviation.

In INT 09, the funder said *“We employ environmental community based organizations to remove alien invasive plants in their local area. This contributes to poverty alleviation and social uplifting”*. The funder also mentioned that it is important that CBOs have good financial skills and have a bank account with no history of misuse of funds and wasteful expenditure.

Since there are many members of the co-operative, is it essential that NEC has a treasurer who monitors all the funds and keeps the records in a safe place. The treasurer is responsible for all finances. She has a file where she keeps all documents, such as invoices, quotations and bank statements. Such information must be available to funder/s when required. The funder also mentioned that members’ stipends are deposited in their personal bank accounts. Signing a contract is also important for mutual understanding between the funder and the co-operative (INT 09).

During the Environment Day celebration, there was a mini-exhibition where schools sold vegetables to the people attending the event. This was organized by NEC as a way of fundraising (OBS 03). At the same event, free seeds were available to the community. The co-operative said they are aware that some families can’t afford to buy seeds (OBS 03). During OBS 08, Bambithuba Co-op. was informed that the nursery was sponsored by Indalo Yethu. It was also mentioned that schools visit the nursery free of charge (OBS 08). At the end of this excursion, visitors bought vegetables and as mentioned, only one NEC member (the garden coordinator) was collecting the money (OBS 08).

During observation 01, NEC discussed the market for indigenous trees. At this meeting, the national Department of Forestry advised NEC to propagate the Arbor tree of the year as there was a guaranteed market.

Entering competitions is another fundraising strategy NEC won a prize of R 30 000 in the Women for Environment Competition and was nominated for the Mayor’s Awards (DOC 12). During OBS 05, NEC members informed stakeholders that they were going to buy a marquee that the group would hire out to the public in order to raise funds. Another tool is working closely with the local municipality. DOCs 05 and 06 state that there were projects that were not funded, but the municipality supported them with resources.

4.7 CONCLUSION

This chapter analyzed the data collected to reveal and audit evidence of the strategies that NEC implements in their environmental projects. The evidence emanated from documents, interviews and observations. The data shows that partnerships, networking, involving the community, supporting schools, mutual understanding and project management skills and practices all contribute to the success of this environmental co-operative.

The following chapter weighs up the evidence documented in the case study and discusses evidence of success with reference to the literature reviewed and the theoretical framework. It thus provides a more in-depth analysis of the findings presented in this chapter. The discussion is structured according to four analytical statements that address the research question.

CHAPTER 5: DISCUSSION OF FINDINGS

5.1 INTRODUCTION

This chapter draws on the case study evidence and audit data reported in Chapter 4. The theoretical perspectives developed in Chapter 2 are then used to discuss the evidence in more depth. As with all chapters, the analysis is also guided by the research question:

What aspects of the establishment and operation of NEC as a successful community based environmental organization are producing environmental projects that are effective and sustainable?

To address this question, I documented and probed the case evidence of how NEC has operated as a successful initiative that has developed and managed community and school environmental projects (Chapter 4). This chapter is developed around analytical statements that were developed from the case evidence presented in Chapter 4. Each statement is examined with its supporting evidence and is then discussed to clarify the factors that are enabling the organization to be both effective and sustainable.

In Chapter 4, evidence on the following patterns of practices was audited as important contributing factors to the successful building of NEC:

- Working in partnership with a forum of supporting agencies.
- Having effective structures for community participation in projects.
- The inclusion of local schools in the process.
- Continuous participation in conferences and competitions that have brought recognition and awards.

The evidence around each of these practices was examined and used to make analytical statements in relation to the research question. I now present and justify each analytical statement developed from the evidence presented in Chapter 4. Each statement is then discussed in relation to the relevant literature reviewed in Chapter 2.

5.2 Analytical statements and discussion

5.2.1 Analytical statement 1:

Developing partnerships and collaboration with supporting agencies provided the advice and expertise necessary for the development and effective management of successful environmental projects within an emerging community of practice.

Chapter 4 (See 4.1) notes, that a monthly meeting is held with the stakeholders' forum. The partners include national and provincial government departments, the municipality, NGOs and other CBOs. The meetings of the forum have the specific purpose of clarifying and sharing

information on environmental issues, as well as getting advice and updates on projects and project management (See 4.6) and evaluation (See 4.6.2). Project time frames and schedules are discussed so that members are informed and inputs are received from other stakeholders.

The evidence gathered suggests that the forum was a vital mechanism for advice and guidance for NEC as well as for skills development and the successful implementation and management of projects. It also offers new opportunities to the group through developing relationships with funding agencies and the successful running of projects. In this way the forum played multiple roles in the development of NEC as a successful CBO.

The spin-off of this appears to have been that new capacity was developed in NEC, notably in project planning practices (See 4.6.1).

Planning practice (See 4.6.1):

Through the forum meetings, NEC planned their environmental projects with the support of forum members. The other tool used was the environmental calendar. Community members attended some planning meetings. According to Burke (1997), the planning of any project not only establishes what is to be done, but also paves the way to “make it happen”.

This was evident in this case study where NEC planned their projects with the support of stakeholders in the forum meetings. Participation was encouraged, awareness of projects was created, problems were solved and decisions based on consensus were formalized. There was also evidence that NEC kept written records of all meetings which demonstrates a level of professionalism to funders and stakeholders.

Monitoring and evaluation practice (See 4.6.2):

Furthermore, projects were monitored and evaluated in the forum meeting. Some departments also used site visits to monitor and evaluate projects, especially funded projects. In some cases such visits were unannounced. Reports on projects were also used to monitor and evaluate projects. Projects were not only evaluated at the end but during the course of the project.

Monitoring was used by NEC as an internal checking mechanism to enable any necessary adjustments. The monitoring systems that NEC used were simple and efficient; the evidence showed that site visits and meetings were used as a monitoring tool by both NEC and funders and in some cases through reports. NEC monitoring practice is in line with Conrad and Hilchey’s (2011) observation that monitoring may be done by routinely gathering information, or by methods such as spot-checks, visits, meetings, audits or reports.

The evidence showed that NEC evaluated their projects throughout the development and implementation of the program (formative evaluation). An organization's capacity to critically evaluate its own work is a measure of its maturity. This is one of the factors that contributed to the success of NEC.

Training provision (See 4.6.3):

NEC members were trained by a number of national, provincial, local and other stakeholders. Some training was accredited. In some cases training was offered by trainers and in some cases by NEC. According to Sharief et al. (2006), training is a learning process that involves the acquisition of knowledge, and sharpening of skills, concepts, and rules or changing attitudes and behaviors to enhance performance. It leads to skilled behavior.

In Arab countries, the Community-Based Regional Development Project developed three-year training plus a monitoring process. The material has been locally illustrated, thus fitting neatly into the social-cultural context. Well planned, contextualized training programs are recommended for CBOs. Training should include loan applications, allocation and the importance of a budget and proper management of funds.

Financial management practice (See 4.6.4):

Although the South African Co-operative Act 14 of 2005 does not state who is responsible for funding co-operatives, the evidence from this case study showed that NEC had a bank account, which was handled by one member. The co-operative is also registered and pays tax to the relevant authorities.

When the co-operative did not have any income, members contributed R100 to keep the bank account active. The organization also sought sponsorship from local businesses. Working for Water mentioned that NEC was given a contract because of their good financial practice in previous contracts. Working for Water offered NEC a transformation program which included the development of entrepreneurial skills, providing training and ensuring that at least 60% of the wages were earned by women. After the completion of the contract, NEC was left with business skills that they can utilize for future projects which can contribute to sustainability.

The nursery sponsored by Indalo Yethu, played a big role in generating income since all the money from sales is banked, as it income from selling vegetables. The evidence showed that competitions were also used as a way of fundraising. For example, NEC won R30 000 in the provincial Women in Environment Competition.

The above evidence on NEC is in line with Chechetto-Salles and Geyer's (2006) observation that wise management of an organization can contribute significantly to ensuring the effectiveness of the work that it does. If good planning, monitoring, evaluation, training and financial practice are firmly rooted within an organization, they will make a sustained contribution, as in this case

study. On the other hand, rigid approaches to planning, monitoring and evaluation, or regarding these as simply technical procedures might result in them becoming a burden rather than a tool for self-reliance.

Effectiveness and sustainability appear to develop through a process of “bottom-up” participation in the design and management of projects, as was seen in this case study through the forum meeting. The above-mentioned project management practices appear to have contributed to effective management and thus the growing success of NEC as an organization.

The stakeholder forum also appears to have been important for the development of trust and mutual understanding between the organization and its funding partners. Notable here has been the express purpose of sharing ideas and taking action to address common concerns. The data presented on the operation of the forum suggests that it operated as a community of practice (CoP) (Wenger, 1998). Wenger notes that a CoP is not merely a community that does something together but a group that works together to engage with and resolve shared concerns and purposes.

Within this CoP there was collaboration with government on budgets. This meant that there was project funding for the work to go ahead (See 4.2.1). In a similar case in Nigeria, partnerships between CBOs and the government extended to transparency on the budget available for project support. Although there is no evidence of the operation of its structures as a CoP the open mediating of project funding seems to have been significant. In the case of NEC there was little evidence of transparency but relationships and negotiations with funders were evident. It thus seems that the funding agencies developed a vested interest in the success of the NEC and thus invested in its projects.

The initial registration of NEC as a co-operative was a requirement for obtaining more formal, funded projects. Kenya requires similar registration and there is evidence that this leads to the development of a legal and institutional framework for the operation of organizations with funding and training support. In the case of NEC, developing capacity in effective project management within the legal framework emerged with the support of the agencies meeting in the forum to provide the necessary support for the developing CBO.

For example, since this CBO is legally registered it received a nursery and office building with equipment like water tanks from Indalo Yethu. The same organization provided a three-day training course on propagation, with each member that attended receiving a certificate. This created job opportunities for members of the co-operative.

Further to this, since NEC is a registered co-operative, it was awarded a two-year contract by Working for Water. All NEC members cleared alien invasive plants and received a daily stipend. Training on alien invasive plants was conducted by the provincial Department of Agriculture and Environmental Affairs and all members received certificates. Officials from Working for Water

mentioned that this group was awarded this job because they are a registered environmental co-operative with a good profile (See 4.6).

The forum was the mechanism through which these developments opened up and became possible. In both these cases, the evidence suggests that the external agencies and their support were significant. According to Wenger (1998), external agents can influence Cop. However, he adds that external support must not dominate and that the organization must be strong enough to exist and operate independently. In the case of NEC, the organization was externally seeded and nurtured by organizations (external agents,) but this was done in a way that did not smother the self-organizing drive and capacity development of the organization. Thus, it developed free from dependency and this strengthened the internal leadership and effectiveness of NEC. The forum served the purpose of bringing in support but the organization was able to maintain independent leadership of its projects.

Wenger notes that external agents negotiate a strategic context which can nurture a CoP and that, such negotiations should be two-way. This allows the CoP to be mostly self-sufficient, but they can benefit from resources such as outside experts, travel, meeting facilities and technology. All of these benefits were evident in the case of NEC where the forum opened up opportunities for building expertise and gaining recognition through being recognized as legitimate and functioning independently to initiate development projects supported by state agencies.

It is also evident that NEC is partnering and networking with many other organizations. The support that this generates contributes to its sustainability. It includes guidance and resources when needed. Through partnerships and networks, organizations can move forward with their agenda and remain focused. Partnerships and networking with external agents further ensures that CoP include all the right people and helps them create links to other communities (Ibid).

Across the case evidence it is possible to see that what Wenger identifies as the key characteristics of CoP were operating and developing in ways that built NEC. A review of the evidence suggests that what Wenger identifies as important for an independently operating and successful organization were present in the case of NEC. These are:

1. NEC was a group of people who share a common interest in and concern about responding to community environmental issues.
2. They came together to fulfill both individual and group goals of initiating funded development to resolve local issues.
3. The forum allowed them to experience and share best practice in meetings.
4. NEC and their partners interacted on an ongoing basis to discuss and develop projects and timeframes.
5. Alongside the forum with partners, NEC had regular face-to-face meetings to communicate, connect and conduct community activities.

6. Rapid flow of information and innovation were facilitated through the forum and in community meetings.
7. The forum allowed for a speedy process to discuss problems.
8. The forum also allowed NEC to share knowledge and information with other stakeholders in order to determine how they can contribute to the co-operative's work.

Some of the evidence of direct and sustained support came from the Department of Agriculture and Environmental Affairs that had the intention of both developing and working through community structures, and initially invited all partners to the forum meeting since NEC did not have administrative resources.

As discussed in Chapter 2, NEC developed as a CoP; a group of local people that is concerned about their environment. As noted in their document, this group come together to fulfill their goals of promoting a cleaner and sustainable natural environment in Ntuzuma Township.

The data shows that NEC's ongoing, face-to-face meetings with other environmental stakeholders enable them to share best practices as well as web-based collaborative environments to communicate, connect and conduct community activities. Through these meetings the co-operative ensures a flow of information and propagation of innovation. In their stakeholder forum meetings problems are discussed and possible solutions are shared.

The data further shows that this group acknowledges the knowledge held by other stakeholders and how they can contribute to an enterprise. Wenger et al. (2002) refer to this scenario as a dialogue between inside and outside perspectives. According to Wenger's (1998) stages of development, this can be a Coalescing stage where members come together and recognize their potential, explore collectiveness, define joint enterprises and negotiate terms. This promotes accountable links between NEC and other stakeholders which further provide a linguistic practice. The forum meetings were also used as a platform to discuss environmental developments, be they local, national or international. Through meetings NEC managed to sustain mutual relationships within and outside of the group. Through formal and non-formal meetings the group promoted harmony and managed any conflict. The data also showed that their meetings and stakeholder forum meetings enable problems to be discussed and to find possible solutions.

NEC members work collectively. The data shows that all environmental activities are undertaken as a group. The data also demonstrated that the members share knowledge. For example, when some members have attended a relevant or useful training or workshop, they share that information with the whole group.

The Ntuzuma Stakeholder Forum demonstrates that NEC recognizes the importance of "knowing what others know, what they can do and how they can contribute to an enterprise", as described by Wenger (1998 p. 125). This enables the co-operative to work jointly with professionals from other environmental organizations. It also nourishes and maintains a culture of joint and inter-

professional working. Substantial evidence was found that NEC works closely with many different environmental stakeholders, which leads to collaboration in local environmental activities. The stakeholder forum is able to identify solutions to common environmental problems as well as a process to collect and evaluate best practices. For example, due to soil erosion in Ntuzuma, NEC has been involved in greening projects where they promote “one home one garden”, plant indigenous trees and have even established a local recreational park. These greening projects were implemented after the group became aware of climate change as a result of their interaction with other professionals. As noted in section 4.3, the Minister of Environmental Affairs was part of their PRE COP 17 road show. These purposeful actions lead NEC to deliver tangible results.

From the interviews and observations conducted for this study it was evident that NEC supports and mentors other local environmental groups and co-operatives. This encourages the free flow of ideas and exchange of information. Talking, sharing and discussions with peers lead to effective learning for all involved. As reported during observation 08, NEC invites other co-operatives to their nursery to share information about how they were sponsored and how to propagate plants. Such communication promotes “opportunities to engage with others who face similar situations”, as indicated by Wenger et al. (2002).

Forum meetings provided an accountable link between the individual, group and place in the broader social order. This is where NEC developed ways of doing things, views, values, power relations and ways of thinking and extended this to other partners who were part of the meeting.

Although the forum meetings were seen as developing and nurturing NEC, it is important to note Wenger’s (1998) assertion that, some CoPs need to be carefully seeded and nurtured by organizations in a way that does not smother the CoP’s self-organization drive. Even when organizations support a CoP, their development ultimately depends on internal leadership. NEC overcomes this by making sure that their objectives are met; hence, they drive all their environmental projects.

All of the above evidence and discussion demonstrate that NEC developed as a CoP to become self-organising, primarily through partnerships and collaboration that built the organisation as a functioning entity at community level. The record of forum activities indicates that NEC was encouraged to develop projects in context with community members. This was strengthened by community engagement, the focus of the second analytical statement that follows.

5.2.2 Analytical statement2:

Regular community consultation and the inclusion of benefit-producing projects were important processes of community participation in the growth of a successful co-operative.

The relationship between CBOs and the community helps bring them together to solve shared problems. This creates social bonds within the community, thereby strengthening personal relationships.

The community in which NEC operates is involved in the environmental activities and projects that it organizes. The co-operative was observed giving 300 households an indigenous tree and a fruit tree. These trees were sponsored by NEC since they wanted to green their environment. Households were happy to receive the trees. Before the hand-over, community members were taught how to plant the trees and why it is important to plant trees. These presentations were conducted by professionals organized by NEC. Further to this, NEC built a community park. Entry is free to all community members. It has trees, grass, flowers and play equipment. The community appreciated this initiative. NEC took the opportunity for the community to work jointly with professionals to promote effective learning. This partnership promotes a culture of joint and inter-professional working as stated by Wenger et al. (2002).

Mansuri and Rao (2004) note, that the cornerstone of CBO initiatives is the active involvement of the members of a defined community in aspects of project design and implementation. Success is more likely if CBOs involve local community members in planning, decision-making and action. In the case of NEC this led to ownership, support, and unity. The case evidence reflects that local residents value participation because it enhances their sense of community and their well-being and expresses their democratic right to have a meaningful say in decisions that affect them (Clunies-Ross, cited in Butterworth and Fisher, 2000). This was seen in community members' participation in planning meetings.

The ward councillor is the face of the community and represents the community. It was evident that the ward councillor takes part in environmental activities. He was seen at two events organized by NEC. He thanked them for their good work, especially when he saw the community receiving free vegetable seed that was organized by NEC to establish gardens in his ward. This showed that this co-operative is alleviating poverty in the ward.

Education and door-to-door awareness campaigns are conducted by NEC and professionals. For example, before any clean-up campaign, home visits are made and a talk on the environment is presented. Rather than being negative, community members opened their doors and listened to the talks. This is evidence of the good relations between the community and NEC. While such education and awareness campaigns are not formal, they can bring about change in the community. Clover, cited in Butterworth and Fisher (2000, p.4), notes that, "environmental

education should not focus only on children in formal educational settings since this does not match the need for deeper, political level of environmental action. Such deeper, political levels of environmental action can only be brought by the collective involvement of adults". Wenger (1998) also states that good citizenship can be learned, not from a formal curriculum but instead through positive experiences of active involvement in society.

The evidence shows that NEC facilitated the establishment of many community and family vegetable gardens. This was achieved by organizing free seed as well as clearing alien plants along the streams so that gardens could be established. NEC also supported farmers in the area although they are not members of the organization. This strategy ensured that community farmers/gardeners share information. Some families sell the vegetables they produce, contributing to poverty alleviation.

NEC organized environmental events like Arbor Week/ National Clean-up/ Environment Week. Community members took part in these events, including clean-up activities. It was also interesting to note that community members participated in planning such activities.

Community members were observed dropping off recyclable products at schools for recycling projects. This promoted school-community relations. This was evidence that the community knows about recycling. Due to this relationship, some community members work with NEC to assist schools in their vegetable gardens.

The NEC nursery was opened to the community. It was evident that members of the community visited the nursery and this promoted information sharing. One other community group visited the NEC nursery to be assisted on how to write a business proposal. Further to that, traditional healers in the community use the nursery for medicinal purposes.

NEC created job opportunities for community members that were temporarily employed by Working for Water and the municipality and paid a daily stipend. This alleviated poverty in the community. It was evident that not only NEC members were employed. This initiative created a relationship between this co-operative and community members.

When NEC was removing alien plants, community members offered assistance. Some even asked to be part of the activities. This shows that attitudes have changed and that members of the community are becoming more environmentally responsible.

The above is evidence of collective learning which is described by Wenger (2009) as learning that performs better than the sum of individual learning, as demonstrated in studies on organizational learning and the wisdom of crowds. Wenger adds that learning is part of participation in communities and organizations. The above community involvement shows learning that is situated within a social unit.

It is therefore concluded that NEC promotes social learning. Wenger (1998) describe social learning as “a change in understanding that goes beyond the individual to become situated within wider social units through social interactions between actors within social networks”.

Reed et al. (2010) state, that, social learning must demonstrate that a change in understanding has taken place in the individual involved. They add that, this may be at a surface level (recall of new information) or at a deeper level (change in attitudes) and that social learning must go beyond the individual to become situated within wider social units within society. In conclusion, they maintain that, social learning must occur through social interaction and processes between actors within a social network, either through direct interaction (e.g., conversation), or through other media (telephone/ web) It was evident that community members understand local environmental issues and risks; hence, they get involved in NEC-organized projects. It is also evident that attitudes have changed as seen in community members’ requests to assist NEC. The common goal was to clean the environment, and through environmental projects this goal was shared by NEC with the community and they have accepted it.

All of the above shows that the relationship between CBOs and the community brings them together to solve shared problems. This creates social bonds within the community, strengthening personal relationships, as stated by Mansuri and Rao (2004). This has the potential to lead to successful environmental projects where ‘success brings further success.’

5.2.3 Analytical statement3:

Successful projects with tangible benefits and sustained work with local schools, including expanding the partnership to eco-schools built further positive support in the local community.

As reported in Chapter 4, NEC works with local schools. The co-operative adopted six local schools, namely, Bonisanani Primary, Ntuzuma Primary, Dalmeny Primary, Dumehlezi High, Halalisa Primary, and Muziwabantu Primary. Three of the six are now eco-schools with green flag status. All these schools worked as a cluster to support one another. There is evidence that these schools are beginning to integrate environmental education activities into the school curriculum. All six schools have established vegetable gardens that are used to support learners from disadvantaged homes and as a teaching aid. A Maths educator also noted that the gardens are used by educators for measurement lessons. These schools participate in the provincial Siyazilimela School Garden Competition. They received garden tools and educators were trained in permaculture.

The evidence in Chapter 4 showed that NEC supports local schools by organizing for professional environmental education officers to visit schools and give presentations and/or talks during school assemblies or class. These professionals also offered environmental education to teachers.

NEC supported local schools to organize environmental excursions. One school mentioned that their school was invited to Mpumalanga Province to do a presentation on how they work with NEC. The school principal noted that this exposed them to many opportunities. Further evidence was found that schools partner with some local businesses as a result of NEC's support; one principal mentioned that their school is working closely with Unilever Brothers, Woolworths, and ABI and that these businesses supported them in their Arbor Week Event which was attended by more than 500 people.

One of the educators mentioned that NEC developed the curriculum. He added that learners were taken to the local stream and were taught about biodiversity. They were excited to witness local biodiversity like crabs. According to this educator, such activities were very useful as the local schools do not have science laboratories. Hence, this educator said that NEC helped "*develop the curriculum*" (INT 06).

As reported in Chapter 4, NEC organized educators' training and workshops on the environment. These included training by WESSA and the Department of Environmental Affairs. Hence, NEC also contributed to educators' development.

As noted in Chapter 4, school and community relationships have been established because of NEC. One school principal mentioned that NEC encouraged their school to work with the community. The evidence showed that schools and the community worked together on clean-up campaigns, removing alien invasive plants and establishing vegetable gardens. The same principal said that their environmental club worked very closely with the community, even during annual environmental planning meetings, where activities and projects are identified and implementation processes are discussed. This is supported by Bauch (2001), who states that school-community partnerships enable goals to be set, needs to be assessed, and the development of a vision, as well as facilitating decisions on how to manage the process.

The study also found that NEC is supporting schools to green their school grounds. NEC gave the schools indigenous trees supplied by the Department of Forestry. The trees will prevent soil erosion and provide shade in the school grounds.

Through working with schools, NEC has been able to "stimulate learning by serving as a vehicle for authentic communication, mentoring, coaching and self-reflection" (Wenger, 1998).

Bauch (2001) argues that school-community partnerships enhance educational processes and learning. The author adds that if communities work with local schools, there are many possibilities for innovation and effective projects.

All the above evidence confirms that partnerships between NEC and local schools contribute to the success of NEC environmental projects.

5.2.4 Analytical statement4:

Building a profile and sustained growth through attending local, provincial, national and international environmental conferences, seminars, courses, trainings and participating in competitions and awards.

NEC participated in the Alien Invasive Competition. In this competition, participants worked to control alien invasive plants through networking with different stakeholders. NEC won a prize of R5 000 from the provincial Department of Environmental Affairs. The co-operative also received equipment to remove and control alien invasive plants.

NEC established a networking forum for local farmers and local agricultural co-operatives. This platform was established to share information. Monroe et al. (2009) state that a community forum is a tool designed to provide information, enable participants to ask questions of experts and create an atmosphere for discussing an issue that requires relatively little investment from the participants.

Eade (2007) notes that, networking enables people to share new ideas and information in order to learn from others with similar interests. Networks also allow participants to pool their experience and energy in order to enhance their collective and individual impact. The evidence suggests that the development of a profile further enhanced NEC's success. With so many other organizations failing to succeed, NEC's profile became even stronger.

Participation in international networks enables people to make the link between the global level and what is going on in their own lives. Belonging to an international network enables members to maximize their impact within their own spheres of activity (Eade, 1997). This was witnessed in 1980 where several international NGOs in Central America used their institutions' membership of an umbrella group to convene high-level meetings and engage support for region-wide policy initiatives that could not have been achieved had they acted on their own.

5.3 Synthesis

What aspects of the establishment and operation of NEC as a successful community based environmental organization are producing environmental projects that are effective and sustained?

The success factors seem to mainly emanate from the way in which the forum has operated and how the organization has developed capacity through its interaction in the forum as well as with the community and in schools. It is difficult to isolate the factors that have worked together. What is clear, however, is that the large number of failed projects did not have forums that operated as a supportive CoP with funders and organizations working together on projects, thus developing capacity in key areas that produce successful organizations and environmental projects.

The relationship between NEC and the community and schools further contributed to their successful implementation of environmental projects. It was also noted that NEC implemented sound project management in their environmental projects and participated in numerous competitions and conferences.

5.4. Conclusion

Analytical statements were discussed in this chapter. The statements were developed from the data collected by the researcher. The theoretical frameworks adopted for this study were also used to inform the discussion.

The following chapter summaries the findings and presents recommendations arising from these findings.

CHAPTER 6: FINDINGS AND RECOMMENDATIONS

6.1 Introduction

This final chapter summarizes the case study, and presents recommendations based on the analysis and discussion presented in the previous chapter. These recommendations focus on what might be done to encourage and strengthen CBOs as a means of fostering change towards a sustainable future.

6.2 Summary of the study

As noted in Chapter 1, environmental CBOs are involved in many community projects. However, few manage to sustain these projects.

The main purpose of this study was to investigate the strategies employed by one successful environmental CBO (NEC) and how it has sustained its school based and community based projects. The co-operative was thus selected as a case study due to its success.

Achieving objectives that were stated in Chapter 1 enabled the researcher to address the research question:

What aspects of the establishment and operation of NEC as a successful community based environmental organization are producing environmental projects that are effective and sustained?

By investigating the above research question and pursuing the research objectives, the researcher was able to identify strategies that contribute to the sustainability of an environmental CBO.

The researcher employed a qualitative research method in general and case study research methods in particular to find answers to the research question. Interviews, document analysis and observation were used to collect data. The collected data was examined and discussed in relation to analytical statements based on the evidence presented in Chapter 4.

Based on the study's findings, the following major recommendations are made.

6.3 Recommendations to strengthen the functioning of CBOs supporting environmental learning and change in school and local community contexts:

1. CBOs should expand their boundaries to include other relevant partners and stakeholders. This can be a good platform for supporting agencies that are in a position to offer the advice and expertise required for the development and effective management of

successful environmental projects. It is further recommended that such forums be used by CBOs to inform other parties about time frames and schedules of local environmental projects.

2. Community participation should be encouraged and CBOs and the community should work together to ensure that environmental projects are sustained. This includes community consultation and extending the benefits of a project to the broader community. It could include any local community structure such as Faith-Based Organizations, political structures, youth groups and business forums, etc. Informing the community of local environmental projects and inviting them to participate will build relationships and secure support and buy-in. This can also be a tool to promote activities to address local environmental risks and issues.
3. Environmental CBOs should partner with local schools. This can contribute towards developing environmental work in relation to the school curriculum and can lead to some schools being part of environmental education programs like Eco-schools, the establishment of school vegetable gardens and school recycling projects. It could also lead to positive support in the local community.
4. Environmental CBOs should attend environmental conferences and seminars, and participate in environmental competitions and awards not only locally, but internationally in order to share and learn from other countries' CBOs, especially in terms of how to sustain projects. This would help CBOs to build a profile and sustain their growth.

6.4 The contribution of the study

The South African government promulgated the Co-operative Act 14 of 2005 to encourage communities to establish co-operatives as a tool or strategy to address local social issues and risks and act accordingly. The above recommendations could also be of assistance to the South African government since it believes that CBOs are one way of empowering previously disadvantaged groups through sharing the profit and benefits from projects.

This study is relevant to CBOs as it identifies practices that could contribute to the sustainability of projects and programs, environmental or otherwise. As noted by Mansuri and Rao in *The World Bank Researcher Observer* (2004), CBOs are the fastest-growing mechanism for channeling development assistance.

What I learned in this case study is that CBOs play an important role since they have the potential to act as a tool for development in the communities they are part of. The South African government should empower and support these groups since they promote development and play a role in poverty alleviation.

I also learned that CBOs can strengthen their role by partnering with local schools as well as other local organizations, including businesses. Furthermore, government departments need to work closely with CBOs since such partnerships can make these departments more visible in communities.

6.5 Limitations of the study

One major limitation of the study is that only one successful CBO was investigated. Unfortunately, there were no other success cases to consider and the widespread failure of these structures placed this approach at risk. A study of the one outstanding success was thus required to inform our work in the future. Despite the rich data on the success of the organization, this study cannot claim to be representative of all successful CBOs and their practices. The evidence must thus be approached with caution.

The study did not intend to generalize the results, but rather to identify practices that contribute to the success of one CBO. The recommendations made are therefore limited as they apply to the one successful CBO where the research took place. I have, however, drawn on and discussed many of the outcomes as they have broader value. Bassey (1999) proposes that, through a process of “fuzzy generalization,” an analytical process is possible where recommendations can be tentatively viewed and considered in relation to other contexts. This is particularly relevant in my work where I can take what I learned into continuing work with less successful CBO initiatives.

Language was a further limitation. The members of the CBO investigated were all interviewed in isiZulu; this meant the researcher had to translate all interview scripts from isiZulu to English. This exercise was not easy since some Zulu words cannot be translated directly into English and there was a danger of losing the meaning. This limitation was addressed by examining and verifying the data that emerged from documents and interviews during the extensive observations that I conducted throughout the research. This was a key experience that allowed me to make and take forward practical recommendations in my continuing work.

6.6. Suggestions for further research

From the data gathered and the interpretations generated in this study, the following areas for further research are recommended:

- Similar research with a wider sample of CBOs
- Examining the role of CBOs in stimulating community development
- It was noted in Chapter 2 that while the South African Co-operative Act 14 of 2005 has been adopted, the role of the government in promoting CBOs is not clear. It would therefore be interesting to investigate how the government supports environmental CBOs.

6.7 Conclusion

This chapter presented key recommendations based on the analytical statements, associated evidence and discussions. It included reflections on the study, and its contribution and limitations, as well as recommendations for further study. In line with the primary objective of this study, it has revealed possibilities for improving the way CBOs operate environmental projects in order to ensure success and sustainability.

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