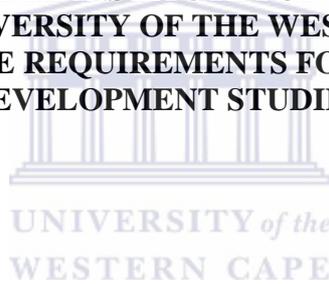


**THE ROLE OF COMMUNITY PARTICIPATION IN DEVELOPMENT
INITIATIVES: THE CASE OF THE DANGA ECOLOGICAL SANITATION
PROJECT IN THE ZVISHAVANE DISTRICT, ZIMBABWE.**

DARLINGTON SIBANDA

**THESIS PRESENTED TO THE INSTITUTE FOR SOCIAL DEVELOPMENT,
FACULTY OF ARTS, UNIVERSITY OF THE WESTERN CAPE, IN PARTIAL
FULFILLMENT OF THE REQUIREMENTS FOR THE MA DEGREE IN
DEVELOPMENT STUDIES.**



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SUPERVISOR: MULUGETA F. DINBABO

DECLARATION

I, the undersigned, hereby declare that this mini-thesis is my own work and that I have not previously submitted it to any other university for a degree. All the sources that I have quoted have been indicated and acknowledged by means of references.

Signature _____ Date _____



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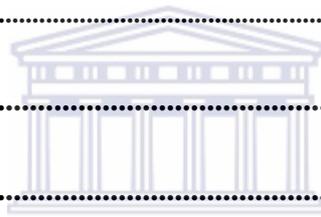
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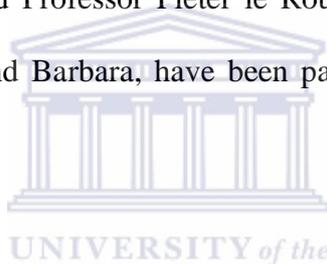
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ABSTRACT

Sanitation is crucial in the political and socio-economic development of any given community. Research has shown that the majority of people living in developing nations still lack basic sanitation. The context becomes more complex when one tries to balance basic sanitation and sustainable development, since any waste disposal may have a direct impact on the environment. Ecological sanitation is rooted in the concept that the provision of basic sanitation needs to take into cognisance the impact on the environment. In the past decade, ecological sanitation has been encouraged both in developing and developed countries, which saw many projects being run by both government and non-governmental agencies. Besides being plausible models of ecological sanitation units, as well as having obvious merits, acceptance and utilisation have been very slow, to say the least. It is generally accepted that success or failure of such projects hinges on the implementation process, especially the involvement of the community.

The purpose of this study was to examine the level and extent of community participation in the Danga Ecological Sanitation Project carried out in the Zvishavane district of Zimbabwe. The people-centered approach was chosen as a theoretical background. Both quantitative and qualitative methods were used to gather relevant information. The results indicated that the community was not fully involved in the ecological sanitation project. As a result, the project had a poor performance record.

In the course of this study, political interference in community projects carried out in Zimbabwean rural communities, resulting in the failure to reach the intended beneficiaries, was also noted. Full community participation in community projects may ensure that empowerment and ownership take place. Institutional arrangements, which in most cases impede development, need to be readdressed with clear demarcation of decision-making processes.

ACRONYMS

DANIDA	Danish International Development Agency
ECOSAN	Ecological Sanitation
GDP	Gross Domestic Product
MDG	Millennium Development Goals
NGO	Non-governmental Organisation
RDP	Reconstruction and Development Programme
SIDA	Swedish International Development Cooperation Agency
UN	United Nations
UNDP	United Nations Development Programme
UNICEF	United Nations Children's Fund



CHAPTER 1: INTRODUCTION

1.1 Contextualisation of the Topic

Sanitation plays a vital role in our lives and the lack thereof is a clear indicator of poverty in most developing nations. Functional health systems normally have excellent primary health care, of which sanitation is the foundation. Good sanitation, primarily, is the safe and sound (hygienic) handling and disposal of human excreta, including people's approach to satisfying their primal urge (Avvannavar & Mani, 2007).

According to a report compiled by the Swedish International Development Cooperation Agency (Sida), sanitation is a key determinant of equity in society and society's ability to sustain itself (Esrey, Gough, Rapaport, Sawyer, Simpson-Hébert, Vargas & Winblad, 1998). Thus, the lack of sanitation is a major setback in the development of societies throughout the world. The general health of humans hinges on good sanitation and primary health care.

Millions of people, worldwide, have died as a result of poor sanitation.

Franceys and Gerlach (2008) summarised Goal 7 of the United Nations Sponsored Development Goals (MDG), which states the need to provide a clean water supply and sanitation and ensure environmental sustainability. On the same note, goals 10 and 11 state that the international community aspires to halve, by 2015, the proportion of people without sustainable access to safe drinking water and hygienic sanitation. According to the Millennium Development Goals Report (2008), 2.5 billion people across the world remain without improved sanitation, and half a billion of these are in sub-Saharan Africa. Furthermore, half of the world's population lives in rural areas and 70% of these do not have adequate sanitation. Of the developing world's population, 25% exist without any form of sanitation; hence open defecation is the only option (Millennium Development Goals Report, 2008). While there has been a general improvement, especially in urban areas, rural areas lag far behind in terms of basic sanitation.

Research has shown that sanitation, or lack thereof, has direct implications on other development goals such as improving health and decreasing child mortality. Sanitation is therefore the underlying foundation of a healthy society. The incidence of several diseases would be reduced if issues of sanitation were adequately addressed. The topic of adequate sanitation deserves far more serious attention, and there is also a need to explore new sustainable and environmentally friendly sanitation methods. Of importance here is the promotion of a socially acceptable, cheap and sustainable waste disposal option. It is without doubt that poorly disposed of human waste poses a great danger to the health and safety of individuals.

Furthermore, authors of a wide range of literature, consulted on this topic, emphasise the importance of community participation in the planning, implementation, monitoring and evaluation of development initiatives, which include sanitation projects (Duncker, Matsebe & Austin, 2006). The beneficiaries of any proposed development participate through their organisations in determining the type of development most relevant to their needs, and may also participate in the implementation and subsequent management and monitoring of the development initiative (Roodt, 2001). In this study, participation is regarded as the voluntary involvement of people in self-determined change (Mikkelsen, 2005). Development theorists generally maintain that beneficiaries of development must be actively included in the process in order for projects to be sustainable.

1.2 Rationale and Significance of the Study

This research was focused on the level and extent of participation of the Danga community in the Danga Ecological Sanitation Project in Zimbabwe. The Mvuramanzi Trust has been responsible for the co-ordination and implementation of the project.

This project was important because diseases in the community were directly related to poor sanitation. Diseases such as diarrhoea, cholera, worm infestations, hepatitis and other related

diseases were extremely prevalent in the community and a decision was made by the Mvuramanzi Trust and other partners to implement different forms of sanitation in most of the rural areas. The philosophy of the trust was that they implement the project in a way that it is sustainable but also directly benefits small agriculture projects which are prevalent in the community. Most importantly, this project was conceived in such a way that it is environmentally friendly and ecologically beneficial. One of the objectives of the project was to use human waste for crop production. A scarcity of literature was available that provides examples of projects where the nutrients from human waste are used for such purposes.

The focus of this research was to investigate the extent of community participation in the development initiative in terms of identification of the problem or need, the planning of the project, the implementation of the project as well as the monitoring and evaluation of the project. I, the researcher, concur with the view that sanitation is not simply a matter of providing toilets, but rather an integrated approach that encompasses institutional and organisational frameworks as well as financial, technical, environmental, social and educational considerations (Austin, Duncker, Matsebe, Phasha & Cloete, 2005).

1.3 Background to the Case Study Area

This section provides a brief overview of Zimbabwe, where the case study area is located in terms of its geographical location, as well as detailing the socio-economic challenges. A brief background of the district of Zvishavane is also given, before providing an overview of the case study area.

1.3.1 Sanitation in Zimbabwe: A general overview

Zimbabwe is a subtropical country located in southern-central Africa with a population of around 12,5 million, according to the census of 2002 (Jonker, Beukman, Nyabeze, Kansiime & Kgarebe, 2002). Once referred to as the 'bread basket' of Africa, Zimbabwe is currently

facing enormous political and socio-economic challenges. Coupled with HIV/AIDS, the country has not been spared worldwide natural disasters such as drought and water scarcity.

The sub-Saharan nation was reeling under one the most devastating cholera outbreaks in 2008. Not only did it leave a trail of destruction on the already battered communities but it also exacerbated the crippling socio-political situation. Raftopoulos and Mlambo (2009:226) noted that “[a]s a result of the state’s incapacity to supply clean water and the breakdown of the public health system, the humanitarian crisis effectively signalled the state’s capacity to provide basic services for its citizens”. Furthermore, “access to safe water supply and basic sanitation continues to be eroded due to the general economic decline, reduced institutional and community capacity, cyclical droughts and the effects of HIV/AIDS” (United Nations Children’s Fund, 2008:1). The cholera pandemic, which claimed more than 3000 lives, was a wakeup call for most governments in developing nations, underlining the critical importance of sanitation. UNICEF (2008) reported that six million Zimbabweans (both rural and urban areas) are at risk.

According to the Central Statistics Office of Zimbabwe, by 1995, a national survey classified 88% of communal people as poor, with female-headed households having a higher degree of poverty than others (Moriarty, Butterworth & van Koppen, 2004). Since then, poverty has escalated both in depth and extent, with the GDP per capita in 2003 being projected as 40% below 1999 levels. In addition, unemployment had risen to above 80% after thousands had lost formal employment (Moriarty et al., 2004)

Recent statistics show that Zimbabwe’s 12.2 million population has a gross national income per capita of US\$340 (UN, 2009). The percentage of people living on less than \$1 a day stands at 56.1%, a score of 0.513 (151 out of 177 countries) on the human development index (UN, 2009). Further statistics indicated that life expectancy is pegged at 41.7 years, and in addition, the country has also faced high child mortality (current numbers indicating 82 per

1000). The years since 2000 have shown that the state has failed to provide its citizens with basic services.

Zvishavane district is located in the southern part of the Midlands province in Zimbabwe. It is characterised by a high population density in its mining town (Mbereko, Chimbari & Mukamuri, 2007). The town and the surrounding area boast enormous mineral deposits and have direct links to strategic road and rail infrastructure. The town in Zvishavane is surrounded by poor rural communities who survive predominantly on subsistence farming. Despite the area's mineral wealth, the local rural communities experience extreme poverty. In these areas sanitation remains a serious challenge to health and to the general development of the area.

1.3.2 The Danga community

The Danga community is located in the Shavahuru ward, under jurisdiction of the Runde Rural District council of Zvishavane. Comprising an average of 450 households, Danga's community members rely mainly on small-scale subsistence farming for survival. Besides the seasonal growing of crops like the staple food, maize, the community also supplements its income through gardening, fishing and the rearing of domestic animals. Land ownership in most communal areas of Zimbabwe is registered under the state, and traditional chiefs and headmen oversee distribution and related issues.

Traditional leadership is quite strong, with local chiefs and headmen at the core of a wide range of issues. Knowledge of these institutional arrangements is central to understanding community participation and approaches to developmental interventions. Besides being the traditional leadership, traditional leaders and ward councillors, it is important to note, have overlapping responsibilities.

The area suffers a general lack of health facilities. The only clinic serving the area is located approximately 10 kilometres away. As a result, significant reliance is placed on traditional

medicine. Furthermore, the majority of births take place in homes with the assistance of traditional midwives. Sanitation is a cause for concern, as very few people have access to clean water. One or two boreholes service the entire community, and the rest rely on unprotected wells and rivers for domestic use. Cases of diarrhoea and other poor sanitation-related diseases are common.

1.3.3 The Danga ecological sanitation project

The Mvuramanzi Trust is a Zimbabwean non-governmental organisation established in 1993. According to Guzha (in Austin et al., 2005), the organisation has been running trials on ecological sanitation and has so far managed to develop four technologies, used in different communities. Ecological sanitation approaches in Zimbabwe are based on providing a means to remove human excreta safely and simply from the toilet, preparing human excreta for use in agriculture by encouraging the formation of humus, and reducing the pollution of groundwater and the atmosphere as much as possible (Andersson, Esrey, Sawyer & Hilliers, 2001). After running some successful trials in high-density suburbs of Harare, the Danga Ecological Sanitation Project was chosen to be a part of a series of projects launched in Zvishavane District in the early 2000s.

Funded by the Mvuramanzi Trust, the project focused on conducting baseline surveys on the feasibility of, and social attitudes towards, ecological sanitation (Mvuramanzi Trust 1997). The organisation also attempted to encourage community participation at grassroots level. Community members were trained on how to build Ecosan (ecological sanitation) units, and community members and household members provided labour. Ecosan units were built in houses and at schools. Building material was provided by the organisation, and builders from the community were trained and employed temporarily for the duration of the project.

Several community development practitioners will agree with Guzha (in Austin et al., 2005) that community mobilisation, empowerment and participation are crucial prerequisites in

implementing successful community projects. For him, the main challenge is the need to engage the beneficiaries throughout the process in order to ensure sustainability of the project and acceptance of the urine-diversion technology (Austin et al., 2005).

1.4. The Research Problem

1.4.1 Problem statement

Ecological sanitation in rural communities not only provides sustainable livelihoods, but also provides a wider and general response to calls for a cleaner environment. However, most scholars (Austin et al., 2005; Esrey et al., 1998; Morgan, 2004) have noted that little research has been carried out on the social acceptance of these new technologies. It is generally accepted, though, that more attention needs to be focused on ecologically sustainable interventions, and despite the conceived merits of such projects, research has shown that community participation is the key to successful community initiatives.

General surveys on the use of ecological sanitation units have revealed that few households are actually using them. Research conducted in the eThekweni Municipality has shown that households tend to abandon the urine-diversion units once they are full (Austin et al., 2005). Lack of community participation has been frequently blamed for this scenario and therefore the aim of this study is to investigate the level and extent to which community participation was used in the implementation of the Danga Ecological Sanitation Project.

1.4.2. Overall objective of the study

The overall objective of this study is to determine the level and extent of community participation in the Danga Ecological Sanitation project, which was carried out by the Mvuramanzi Trust in Zimbabwe, and to provide recommendations for current and future developmental initiatives.

1.4.3 Specific objectives of the study

The more specific objectives of the study are to

1. interrogate the different perspectives of literature on the current knowledge on sanitation and community development, thereby providing a theoretical and conceptual framework for the study by analysing the relevant theories and concepts,
2. provide a socio-economic overview of the case study area of Danga,
3. describe the implementation process of the Danga Ecological Sanitation Project,
4. identify participatory structures in the community, with special focus on traditional leadership, community structures and government involvement,
5. investigate the level and extent of community participation, and
6. provide recommendations to the community, policy makers, NGOs, and other interested parties in terms of participation in ecological sanitation projects.

1.4.3 Specific objectives of the study

1.5. Research Design

A research design is important because it provides a structure or framework for collecting and analysing information for the research. Kothari (1990) and Babbie and Mouton (2001) stipulated that a research design should be a plan or structured framework of how one intends conducting the research process in order to solve the research problem. As indicated in the main objective, the aim of the study is to determine the level and extent of community participation in the Danga Ecological Sanitation Project carried out by the Mvuramanzi Trust in Zimbabwe and to provide recommendations for current and future developmental initiatives.

A theoretical framework will be provided and the methodology of the study is provided below.

1.5.1. Methodology

Primary and secondary data were used in this study, as well as both qualitative and quantitative methods in gathering information. This methodology provided a wider approach towards data gathering and analysis. The different methods will be discussed in the section below.

1.5.1.1 Quantitative methods

Quantitative methods involve reaching inferences through looking at relationships and patterns and expressing these patterns with numbers (Rudestam & Newton, 1992). A total of 40 structured questionnaires were distributed to households through a simple random sampling method. The structured questionnaire first gathered demographic and socio-economic information from respondents. Second, it elicited information relating to the nature and extent of household participation in the ecological sanitation project. Both the local council register and the voters' roll were used as the sampling frame.

1.5.1.2 Qualitative methods

According to Babbie and Mouton (2001), the qualitative research design involves studying human action in a natural setting and through the eyes of the actors themselves, together with an emphasis on detailed description and understanding of the phenomena within the appropriate context. Qualitative data gathering methods included observation, focus group discussions and semi-structured interviews.

1.5.1.2.1 Observation

According to Babbie and Mouton (2001), observation can be in the form of *simple observation*, where the researcher remains an outside observer, or *participant observation*, where the participant becomes a member of the group being observed. In addition, Babbie

and Mouton (2001:294) stated that “the greatest advantage of observation is the presence of an observing, thinking researcher at the scene of the action”.

Schools, clinics and households where the ecological sanitation units were built were visited to find out how they were constructed and the extent of usage. Ward committee meetings as well as village development committee meetings were also attended. Attending the aforementioned meetings enabled a determination of the level and extent of community participation, and more specifically, assessment of the number of households who generally attend such meetings. Observation was also used to determine different dynamics in the community. Furthermore, the ability of stakeholders to articulate and voice their concerns in the community was monitored and special attention was paid to the behaviour of dominant groups and the impact on the process.

1.5.1.2.2 Focus group discussions

Focus group discussions refer to, typically, 12 to 15 people brought together in a room to engage in a guided discussion of some topic under study (Babbie, 2007). Focus group discussions are important because they provide direct evidence about the similarities and differences in the participants’ opinions and experiences as opposed to reaching such conclusions from ad hoc analyses of separate statements from each interviewee (Babbie & Mouton, 2001).

For the purposes of this study, a total of five focus group discussions (FGDs) were conducted. The purpose of the focus groups was to determine the nature and extent of community participation in the ecological sanitation project, as well as to identify participatory structures in the community. Each focus group was comprised of 5 to 8 people, representing varying interests. The researcher ensured that a cross section of interest groups in the community was represented. Two focus groups were identified during attendance at ward committee meetings as well as at the village development committee meetings.

Furthermore, one focus group discussion was carried out with the Kufuma Ishungu garden co-operative and two focus group discussions were carried out with representatives from the Nherera (Orphans) community garden co-operative as well as Youth-in-School and Out-of-School organisation. Questions for these three focus groups were formulated around understanding ecological sanitation, the use of human waste in agriculture, participation levels, and recommendations on improving community participation in ecological sanitation projects.

1.5.1.2.3 Semi-structured interviews

Babbie (2007) stated that a qualitative interview is an interaction between an interviewer and a respondent in which the interviewer has a general plan of inquiry, including the topic to be covered. Semi-structured interviews involve the use of open-ended questions as an interview guide, and this method is crucial to the study in order to gather more in-depth information relating to the research problem. In all, 10 semi-structured interviews were conducted. Four interviews were conducted with Chief Masunda, Headman Danga and two village heads from Chemhere and Mutare villages. These interviews were conducted to try to determine the exact role they played in the implementation process of EcoSan Project, as well as to determine the role of beneficiaries. The traditional perceptions of human waste in the view these headmen were also investigated.

Furthermore, one official from the Runde Rural District Council, working in the sanitation section, was interviewed with the intention of determining the success of local projects initiated by different organisations. Interviews were held with the Project Officer for the Danga Ecological Sanitation Project in order to determine the implementation process, two headmasters from Danga Primary and Wasima Secondary school, as well as two ward councillors from the Shavahuru and Mapirimira wards to determine the role each played from the inception to the implementation of the project.

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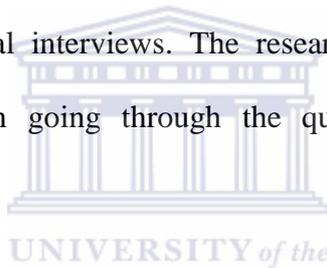
1.6. Data Processing, Analysis and Presentation

Collection of primary data is followed by arrangement of data before analysing or interpreting their implications. Before carrying out processing and analysis, the raw data were coded and arranged according to their respective themes. Babbie (2007) noted that coding is a process whereby raw data are transformed into a standardised form suitable for machine processing and analysis. As pointed out earlier in the previous section, two sets of data were collected, namely qualitative and quantitative data. The data from both individual and group questionnaires were coded, processed and analysed using the Statistical Package for Social Scientists (SPSS) and presented in the form of frequencies, tables, graphs and charts. The explanation and responses from the different group discussions/interviews have been grouped into related themes, patterns and categories in order to answer the different research questions under study. The data are presented in the form of written textual quotes, frequencies, graphs, pie charts, tables and labelled categories.

1.7. Research Procedure

In order to gather both qualitative and quantitative data, the following procedure was applied: After the proposal was approved by the University of the Western Cape, the researcher organised a meeting with Runde Rural District Council officials. The meeting was aimed at gaining permission to carry out the research as well sharing the aims of the study. Emails were also sent to the organisation which carried out the Danga Ecological Sanitation project. A further meeting was planned with the traditional leaders, as well as the respective councillors for permission to conduct the study in their area. This meeting was further used for selecting the sample groups and individual members to be interviewed, both during the pre-testing phase of the study and during the actual data collection phase.

A research assistant was recruited to assist in data collection and facilitation of focus group discussions as well as individual interviews. The research assistant was trained in data collection, more specifically, in going through the questionnaire and interpreting the questions in the Shona language.



The actual field data collection was undertaken between September 2010 and February 2011.

1.8. Limitations of the Study

There were some limitations in the process of executing this study and they included the following:

First, a severe challenge was experienced in tracking the Mvuramanzi Trust officials (implementing organisation). In addition, as non-governmental organisations are sometimes perceived to be sympathetic to opposition parties, the organisations themselves try to protect their officials. Accessing information about the project was also not easy for the reason that some officials chose not to respond, probably being suspicious that this might be used against

them. The researcher was rigorously questioned on who had sponsored the study and why the study had to be done in the community.

Second, the community members initially thought that they would be paid for participating in the study, but after the purpose of the study and the importance of the validity of the results had been explained, the community members were willing to co-operate.

Third, initially, the questionnaire was in English but after testing had been done on a few randomly selected respondents and difficulties with English became apparent, a copy in Shona was made available to community members.

Finally, challenges were experienced in bringing together focus group members. Since it was the farming season, the majority of community members were busy in their fields. Meetings had to be restricted to Sundays and Thursdays when people are not allowed to be in the fields.

Despite these limitations, the researcher is confident enough that lessons drawn from the study serve as a point of departure for other related research on the topic. The findings of the research are still reliable and will provide insight not only on ecological sanitation but also on future projects to be carried out in the community.

1.9. Research Agenda

Chapter 1 introduces the research problem that led into the formulation of the research questions, aims of the study, research design and methodology to be used. This thesis has been divided into five chapters. Below is an outline of how the subsequent chapters proceed:

Chapter 2 provides the literature review and a theoretical background of the study and lays a solid conceptual foundation for the research.

Chapter 3 is focused on physical, social and economic aspects of the case study area of the Danga community in the Zvishavane district and places the study topic in perspective. This is

done by providing a general overview of the nature and extent of the Danga Ecological Sanitation Project.

Chapter 4 provides a detailed account of the empirical field work undertaken in the different case study sites and presents the research findings on the research questions that were raised for investigation on the role of community participation in development initiatives, with special focus on the Danga Ecological Sanitation Project.

Chapter 5 presents general conclusions and recommendations on how best community participation can be structured to improve community empowerment and decision making in developmental projects.



2.1 Introduction

Since the advent of what is famously known as the Truman Doctrine of 1949 (Craig & Porter 2006), the past six decades have witnessed an increased interest in development discourse. A shift in understanding development was marked by sudden interest in participatory approaches in development (Chambers, 2007; De Beer & Swanepoel, 1998; Estralla et al., 2000; Green, 2007; Rahman, 1993). This increased interest arose after discovering that the previous approaches to understanding development (modernisation and dependency) had failed, and resulted in the propagation of the people-centred approach.

The classical development theories lay the foundation upon which the people-centred approach in development will be discussed. The limitations associated with the classical theories will be demonstrated in this chapter and an in-depth analysis of the people-centred approach provided, outlining its merits.

The concept of development is discussed in the first section, providing a foundation for discussing the traditional theories of development. The people-centred approach is discussed before embarking on the ecological sanitation section. In the last section of the chapter, the legislation framework of participation in sanitation projects in Zimbabwe is also discussed.

2.2. Conceptualisation of Development

The term *development* has been at the centre of serious contestation in recent decades. The generic understanding of the concept of ‘development’ is that it is a process whereby an entity, or entities, attains a more advanced state (Swanepoel & De Beer, 1997). Esman (1991:5) defined development as a “steady progress toward improvement in the human condition; reduction and eventual elimination of poverty, ignorance, and disease; and expansion of well-being and opportunity for all. It entails rapid change, but change alone is

insufficient; it must be directed to specific ends. Development involves societal transformation -- political, social and cultural as well as economic; it implies modernization, secularization, industrialization, and urbanization, but not necessarily Westernization”.

Development is multi-dimensional, with scholars and practitioners disagreeing, however, on relative emphasis, priority, and timing. This definition is broad and attempts to take into cognisance all that can be referred to as development. However there are always dangers of being too broad, which result in losing focus of the main tenets of development. Recent writings by post-modernists even claim that there is no development, while others, like Gustavo Esteva, have argued that the term itself, *underdevelopment*, was only coined by President Truman during his inauguration speech (Sachs, 1992: Schuurman, 1993: 23). A closer analysis of the interventions carried out in most rural communities shows that little or no improvement occurred in the supposed beneficiaries' lives.

Other renowned thinkers, such as Amartya Sen, maintained that “development requires the removal of major sources of unfreedom: poverty as well as tyranny, poor economic opportunities as well as systematic social deprivation, neglect of public facilities as well as intolerance or over activity of repressive states” (Sen, 1999: 3). Chambers (2007:35) viewed development as shifting from ill-being to well-being. This is illustrated in Figure 1 below.

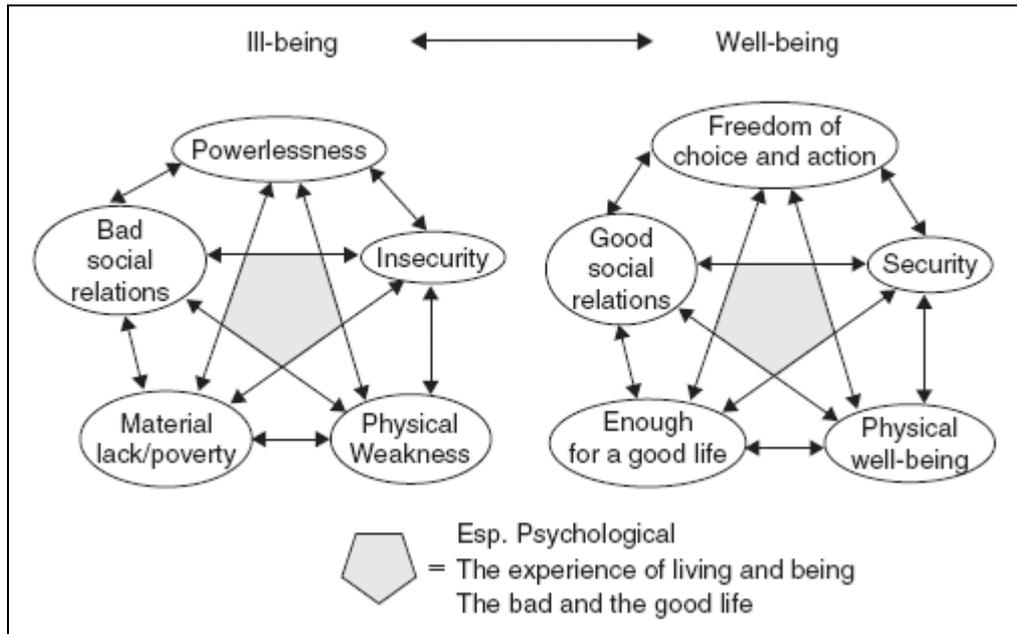


Figure 1: Shift from ill-being to well-being.

In the context of this study, I concur with Todaro's view that development is a multidimensional process involving changes in social structures, popular attitude, national institutions, economic growth reduction of inequality and the eventual eradication of poverty (Todaro, 1994:16).

In the context of this research the term *development* is thus viewed as a process of progressive change in a community, which results in the betterment of the lives of ordinary people. This is achieved through communities themselves indentifying their own challenges and charting the way forward.

In the context of this research the term *development* is viewed as a process of progressive change in a community, which results in the betterment of the lives of ordinary people. This is achieved communities themselves indentifying their own challenges and charting the way forward.

2.3. Classical Theories of Development

2.3.1. Modernisation theory

Modernisation theory (such as the evolutionist theory of Darwin) is based on the broad belief that societies move from traditional to modern, through a series of stages. According to Davids et al. (2005:9), "the essence of modernization is that if 'less-developed' countries are to become 'developed', they should follow the path taken by the developed countries over the past 100-200years".

Graaff (2003: 16) summarised the main principles of evolutionism: It occurs gradually over time; all societies go through the same number of stages, irreversible and progressive, and at the end, all societies end up looking the same. Societies eventually reach a mature stage, characterised by neo-liberalism, a system where the economy is determined by markets, with little or no intervention from the state. The training and technology required to reach this stage, according to modernists, is provided by the West. For example, interventions in developing countries in terms of aid have been structured along the lines of the modernisation theory. Aid agencies identify problems in certain target communities and proceed with the intention to 'change' them, in the Western sense. This results in several projects failing to achieve the desired goals.

The modernisation theory has also failed to explain growing inequalities within societies, where both very rich and extremely poor people are found. Ben Turok used the metaphor the 'skyscraper economy' to characterise the dualism of concentrated white (or other elites), counterpoised by black poverty, in describing the South African situation (Turok, 2007). Other observers have pointed out that this is the case in the majority of countries in Africa.

Among the criticisms laid against modernisation theory is that the theory assumes there is a single way to advancement, which is not the case. According to Fair (as cited by Swanepoel & De Beer, 1997:19), the theory assumes that all societies evolve from a common starting

point of underdevelopment and transform along a reductionist continuum of economic and social change from traditional to modern society. This belief has been certainly proven wrong by the rise of the Asian Tigers as well as, most recently, the spectacular rise of China as a global power in the past few decades (Cohen & Kennedy, 2000). Furthermore, the current world economic crisis poses a huge challenge for modernisation theory. Graaff (2003:27) postulated that “capitalism is extremely unstable, lurching from boom to depression with depressing regularity”.

2.3.2. Dependency theory

Ayres (1995:27), one of the main proponents of the dependency theory, stated that “our ignorance of the underdeveloped countries’ history leads us to assume that their past and indeed their present resemble earlier stages of history of the now developed countries”. For him, “it is generally held that economic development occurs in a succession of capitalist stages and that today’s underdeveloped countries are still in a stage of history though which the now developed passed long ago”. This criticism against the modernisation theory laid the foundation for a more radical dependency theory.

According to Frank, contemporary underdevelopment is, in large, part of the historical product of past and continuing economic relations between the satellite underdeveloped and the now metropolitan countries (cited in Ayres, 1995: 38). For Graaff and Venter (2001:77), “development in core countries and underdevelopment in the peripheral countries are two sides of the same coin”. The main standpoint of dependence theorists is that one country’s advantage (core) is another’s disadvantage (periphery), that is, one necessarily implies another. This relationship can be explained by three distinct factors: lack of investment by multinational companies, unequal balance of trade, and surplus extraction.

Another well-known dependency theorist, Paul Baran, stated that “development and underdevelopment is a two way street: the advanced capitalist countries had become

developed by expropriating economic surplus from those overseas countries with the first traded and which they later colonized, while overseas countries become underdeveloped by aiding the ascendancy of the West” (cited in Hoogvelt, 1982:166). Baran’s analysis of the relationship echoes the Marxist sentiment that the exploitation of the Third World moves through three distinct stages: merchant capitalism, colonialism proper and neo-colonialism (cited in Webster, 1984:70).

Developing countries are adversely affected by a process wherein there is an exchange of cheap raw materials from developing countries for the expensive, finished products manufactured by advanced nations: “Over time, there is a tendency for prices of the primary goods to fall and prices of manufactured goods to rise” (Graaff & Venter, 2001:82).

Besides benefiting from cheap labour, Graaff and Venter (2001: 38) noted that “these multinational corporations did nothing to train this labour. They did nothing to add value to the goods being produced, hence unprocessed goods were exported”. The economies of the developing countries are geared towards the export of raw materials. “The transport systems; their labour systems based on rural migrancy; their governance systems, based on indirect rule through use of traditional authorities; their education systems; their suppression of political participation: all these were designed to make the colonies an extension of the core. They were not designed to foster internal development” (Graaff & Venter, 2001: 38).

Dependency theory has been criticised for its radical leftist solution to this ‘unfair’ relationship between developed and developing nations; that is, cutting ties. Such attempts have been disastrous (Zimbabwe, Cuba and Venezuela) and have failed to address underdevelopment. In addition, globalisation has led to crucial interdependence between nations. Dependency theorists have also laid all the blame on Western nations but ignore poor governance and corruption in developing nations.

2.4. Alternative Approach to Development

2.4.1. People-centred development

The two classical development theories of modernisation and dependency failed to explain the continued underdevelopment of the third world nations, epitomised by increasing poverty and inequalities. This led to the emergence of the people-centred approach, which will be discussed in the section below.

This paradigm shift to a more people-centred approach focused on micro-level as opposed to macro-level theorising. Korten (1990) cited in Davids, Theron, Maphunye, & Kealeboga (2009:17) indicated that people-centred development is “a process by which the members of the society increase their personal and institutional capacities to mobilize and manage resources to produce sustainable and justly distributed improvements in their quality of life consistent with their own aspirations”. Unlike in past theories of development, humans are placed at the centre, contrary to the ‘trickle-down’ approach in other development initiatives.

Theron (2009:104) argued that in the people-centred approach, four fundamental questions are asked about the development process and include the following: From what? By whom? From whom? In what way? To paraphrase Kotze’s contention (cited in Theron, 2009:105), humanist thinking on development implies more than economic growth and includes transformation of institutional, socio-cultural and political systems and structures, hence addressing development in a holistic way. According to the 2000 World Development Report entitled *The role of UNDP in the 1990’s*; “development has its ultimate objective the enhancement of human capacities to enable people to manage their own lives and their environment” (Srinivasan, 1990:7).

2.4.2. Participation in development projects

2.4.2.1. Participation

Participation describes active involvement by people in civic and developmental organisations, political parties and local government, with the purpose of influencing decisions that affect their lives (Roodt, 2001:470). Rahman (1993:150) put forward the idea that participation is the exercise of people's power in thinking and acting, as well as in controlling their action in a collective framework.

Mikkelsen (1995:47) argued that participation is the sensitisation of people to increase their receptivity and ability to respond to development projects. Roodt (2001:472) concurs with this notion, and uses the term coined by Paulo Freire *concientisation*, a process whereby poor and oppressed people become politically and socially aware that their living conditions are not 'natural' but the result of the exploitative policies implemented by the state and their country's elites. Central to this concept is that this awareness is achieved through active participation in educational/political/social organisations in conjunction with fellow citizens and will enable oppressed people to actively change their lot (Roodt, 2001:472).

In the context of this research, the term *participation* is regarded as the ability of the community to identify their challenges and needs and then take charge of their scenario. Participation also refers to "empowering people to mobilize their own capacities, be social actors, rather than passive subjects, manage the resources, make decisions, and control the activities that affect their lives." (International Institute for Environment and Development, IIED, 2010:13). Change agents are only there as catalysts, and the community members are at the centre of development.

2.4.2.2. Types of participation in community development

Traditionally, participation was viewed as active, passive or interactive (Mikkelsen, 1995). Active participation is open and community members take part actively in all stages of the project. Decision making as well as other vital activities, such as management as well as

monitoring and evaluation of the projects, are done by the people. On the other hand, during passive participation, the community maintains a distance and never intervenes in the activities; they are told what is going to happen or what has happened already. Interactive participation is when people take part in joint analysis as well as the planning process and the members of the target community improve their existing structures as well taking charge of their development process (Roodt, 2001: 472). Recent work by researchers like Mikkelsen (2005) identifies more types of participation, which will be discussed below.

The first, passive participation, describes a situation where people are told what is going to happen or has already happened, with no ability to change it (Mikkelsen, 1995). This type of participation is not what would be deemed 'real' participation in development. It typifies the top-down approach; the people are only informed, probably as a way to legitimise the project. There is no true ownership of the project because people are not involved from the inception of the project.

The second type, according to Mikkelsen (1995), is participation in information giving, where people participate by answering questions posed by extractive researchers and developers. The people do have the opportunity to influence the proceedings, and the findings are not checked for accuracy. Not entirely different is the third type of participation, that is, by consultation, where people participate by consultation and decision regarding the nature of problems, and possible ways to solve them depend entirely upon the researchers. The people do not take part in the decision-making process. This appears to be the case in most communities in South Africa currently. The onus for decision making lies with the local government authorities, not the affected communities.

People also participate for material incentives, such as providing labour and land in return for food, cash or other material incentives (Mikkelsen, 1995). In this case, people do not have the will to proceed once the incentives are finished. In the 1990s, activities termed 'Food for

Work' programmes were instituted in rural Zimbabwe, mainly sponsored by the Danish International Development Agency (DANIDA), in which villagers would take part in gully filling or other road repairing, and in return, would receive food parcels. Once DANIDA pulled out, in 2000, the project ended.

Functional participation is when people participate by forming groups or committees which are externally initiated (Mikkelsen, 1995). These groups are seen as the means to achieve predetermined goals. On the other hand, interactive participation is seen as being involved in analysis and development of action plans (Mikkelsen, 1995). In this regard, participation is considered as a right and not just a mechanical function. Groups are formed, together with partnerships, and there is use of systematic and structured learning processes. Groups therefore take control of the local decisions, so people have a stake in maintaining structures or practices (Mikkelsen, 1995). This type of participation empowers the community and is hence ideal for community development. It leads to sustainability and ownership of the projects.

Optimum participation, according to Mikkelsen (1995), indicates the need to focus closer attention on the different contexts and purposes in order to determine what form of participation makes sense. The extreme form of analysis of participation is when it is seen as manipulation. In this sense, for Rahnema (cited in Mikkelsen, 1995) "participation is a new and more subtle form of manipulation" (Mikkelsen, 1995:60). Khwaja, (2004) raised a concern that, in light of the importance of community driven development and decentralisation of public services, there may currently be too great a reliance on participation as a cure for all. Participation in this sense is regarded as a scapegoat to blame the failure of certain projects on the community.

A more powerful form of participation, self-mobilisation has been at the heart of several successful programmes, especially in India, Rahman (1993:179) termed this people's self-

development, rejected dogmatism about collectivism as the ultimate emancipation of labour, and suggested leaving the question to the organic evolution of people's search for life. Mikkelsen (1995) supported this view by stating that people participate by taking initiatives to change systems, independent of external institutions, although the latter can help with an enabling framework. People retain control of resources used, and in addition, such self-initiated mobilisation may change the distribution of resources. Ideally, participation should reflect what Rahman (1993:182) called "people's collective self-identity that reflects deep conceptualisations of popular aspirations". Though Rahman called for complete self-reliance, he noted the fact that human dignity plays an important role in participation and eventually development. Although Rahman does not allude to many Marxist views, he uses Marx's concept of collectivism as the final emancipation of labour. It is clear though, that in the sense of applying a radical approach in delinking from the parasitic West, Rahman calls for total self-reliance through recognising one's own potential (Rahman, 1993).

2.4.2.3 Community development

For Edward and Jones (as cited in De Beer & Swanepoel, 1998:17), a community is a "grouping of people who reside in a specific locality and who exercise some degree of local autonomy in organising their social life in such a way that they can, from locality base, satisfy the full range of their daily needs". This definition has of course changed with the advent of technology, where people from completely different localities can form a community, such as in the 'Facebook community' (De Beer & Swanepoel, 1998).

For Jeppe (1980), cited in Roodt (2001:470), community development

is the conscious process wherein small, geographical contiguous communities are assisted by more developed communities to achieve improved standards of social and economic life. This is done primarily through their own local efforts and through local community participation at all stages of goal selection, mobilization of resources, and

execution of projects, thus enabling these communities to become increasingly self-reliant.

As pointed out earlier, these interventions have the sole purpose of improving the lives of the community. An understanding of the concept of community development is essential to this study, particularly in terms of the ecological sanitation process.

In the context of this research, the concept *community development* denotes a conscious process, in which a group of individuals with a common interest come together with or without the help of outsiders to make positive change in their lives. In addition, it does not require outside help as a prerequisite for change for the better in people's lives.

2.4.2.4 Community development process

The community development process is a cycle wherein participation should take place at every stage of the development initiative in order for the interventions to be effective. First, community organising involves mobilising the target community and identifying problems. Through mobilising and raising awareness, interventions sustainable development is identified. Thereafter, community visioning and planning takes place, which is a process through which the community identifies its future vision. The visioning process establishes a desired end state for the community and a vision for the future towards which they strive (Green, 2007).

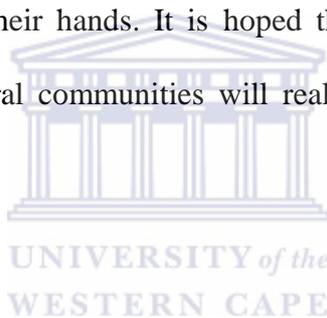
After developing the community's vision and planning, implementation is the stage when the actual necessary action and procedures are undertaken in order to meet the goals and objectives. The purpose of monitoring is to provide indications of whether corrections need to be made in the action plan (Green, 2007). Unlike monitoring, evaluation is collection and analysis of information about the work of the organisation at a single point in time. Monitoring and evaluation are vital in community development because the community is

able to identify whether they are taking the necessary steps towards fulfilment of their goals and objectives.

2.4.3 Advantages of the people-centred approach

2.4.3.1. Empowerment

Development is not about the delivery of goods to a passive citizenry. It is about active participation and growing empowerment (Callaghan, 1997:31). According to the RDP White Paper, “development is not about the delivery of goods to a passive citizenry. It is about involvement and growing empowerment” (Davids et al., 2009:21). Sometimes equated with Freire’s concept of conscientisation, empowerment centres on individuals developing a critical understanding of their circumstances and social reality (Davids et al., 2009: 21). The aim of this study is to raise awareness so that the community may be elevated to a platform where decision making lies in their hands. It is hoped that through this study the Danga Community as well as other rural communities will realise the need for collective effort towards improving their lives.



2.4.3.2. Capacity building

Capacity building refers to enabling institutions to be more effective and efficient in the process of identifying, implementing, monitoring and evaluating of developmental projects (Davids et al., 2009). It is the overall ability of the individual or group to perform their responsibilities (Frank, 1999). According to Swanepoel (1992), by continuously fulfilling their needs, people learn to realise their objectives more easily. It is a mechanism to enable local people to determine their own values and priorities and act on their own decisions. Just as in the concept of conscientisation, the full potential of individuals is realised after they have been made aware; then, depending on their capabilities, they act in order to achieve their goals and objectives (Freire, 1993). The study is intended to show to what extent participation can be used as a vehicle to enable capacity building in rural communities with regards to sanitation provision.

Capacity building, in this research, refers to the ability of the community to learn from their experiences and apply this learning in related projects in the future. Training of community members also encompasses capacity building.

2.4.3.3. Self-reliance

For Kotze and Kellerman (1997:36), people-centred development shifts the emphasis in development action to people, rather than to objects and production, and to the enhancement of their capacity to participate in the development process. Heavily relying on outside resources, such as funding, has resulted in most interventions being unsustainable. A people-centred approach enhances self-reliance in communities. Resources to start an intervention maybe needed, but continued support in terms of resources may result in the collapse of certain projects when funding is no longer available. In addition, recent reports of donor fatigue negatively affecting HIV/AIDS projects in Africa show an urgent need for a paradigm shift towards self-reliance in projects (Bryson, 2011). In this research, the term *self-reliance* can be viewed as the ability for individuals or communities to generate resources for their own initiatives without over reliance from donor help. If the community members start appreciating their strengths and explore the use of cheap and locally available resources, there is a greater chance for sustainability of projects.

2.4.3.4 Sustainability of the project

According to Callaghan (1997:31), for any development to be sustainable, it must be acceptable. In order to achieve acceptance, a sense of ownership must be engendered. Furthermore, ownership can only be achieved through active participation of the target community. He goes on to say that successful development is dependent not only on the quantity or quality of the product but also on the process of introduction. It is generally agreed that participation without power “is an empty and frustrating process for the

powerless” (Swanepoel, 1992:6). Once the community is empowered, members of the community take ownership as the development project belongs to them.

Sustainability of any project is crucial since the development process is continuous. Failure of a community to take ownership has resulted in, for instance, vandalism, corruption and sometimes premature termination of projects which are supposed to benefit the community.

2.5. Ecological Sanitation

2.5.1. Explanation of terms

This section will outline the three major terms used in this study. These are sanitation and waste, ecological sanitation, and ecological sustainability.

2.5.1.1. Sanitation and waste

The South African National White Paper on Basic Household Sanitation (cited in Duncker et al., 2006:5) stated that “sanitation refers to the principles and practices relating to the collection, removal or disposal of human excreta, household waste water and refuse as they impact upon people and the environment. Good sanitation includes appropriate health and hygiene awareness and behaviour, and acceptable, affordable and sustainable sanitation services”.

Sanitation, according to Simpson-Hébert and Wood (1998), is interventions to reduce people's exposure to diseases by providing a clean environment in which to live; measures to break the cycle of disease. This usually includes disposing of or hygienic management of human and animal excreta, refuse, and wastewater, the control of disease vectors and the provision of washing facilities for personal and domestic hygiene. Sanitation involves both behaviors and facilities which work together to form a hygienic environment.

However, sanitation is an extremely complex issue since there is no single solution or a universal approach to tackling it, especially in developing countries (Austin et al., 2005:3). In

addition, differences in terrain, availability of water and environment make it impossible for a one-size-fits-all approach to sanitation.

The concept *waste* has never been subject to a single straight-forward definition. The UK 1995 Environmental Act defines waste as “any substance or object which the holder discards or intends to discard” (Williams, 1998:55). Although this definition encompasses several categories of waste, this study will be focusing on human waste. This includes urine and solid (faecal) waste from people. Special attention is given to this type of waste because if untreated, it can be a hazardous breeding source for pathogens and other infectious diseases. Careful management of human waste leads to better sanitation and eventually a healthier population.

2.5.1.2. Ecological sanitation

Ecological sanitation is an approach in which human waste is recycled for purposes of agriculture. Duncker et al. (2006:5) added that ecological sanitation (EcoSan) is a system that turns human excreta into something useful and valuable, with minimum risk of environmental pollution and no threat to human health. According to Morgan (2004:1),

ecological sanitation is a system that makes use of human excreta and turns it into something useful, where the available nutrients can be recycled in agriculture to enhance food production, with minimal risk of pollution of the environment and with minimal threat to human health.

Faecal matter is generally responsible for most diseases spread by human excreta. Therefore, ecological sanitation seeks prevention of pollution and disease caused by human excreta, treatment of human excreta as a resource rather than waste and recovery and recycling of the nutrients (Esrey et al., 1998:5):

The concept of ecological sanitation refers to a specific sanitation focus that permits the sustainability of the ecosystem and the human settlement where it is being implemented, by providing sanitary conditions for the local population, conserving water and closing the nutrient cycle (Petrowitsch & Arroyo, 2004:369).

According to EcoSanRes (2003), ecological sanitation can be viewed as a three-step process: containment, sanitisation and recycling of human excreta. Austin et al. (2005:14) supported this by stating that sanitation should no longer be regarded as a linear process, but should be holistic in approach and accommodate wider issues. Even though the technologies developed for ecological sanitation across the world vary, yet the concept of ecological sanitation remains at the core. The diagram below represents a simplified concept of closing the loop (Esrey et al., 2001:12).

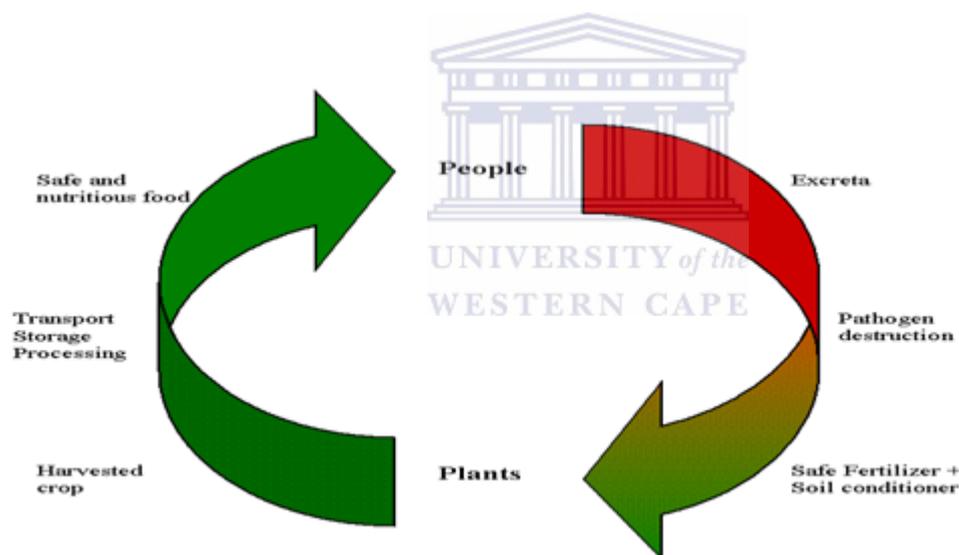


Figure 2: Outlines of ecological sanitation process

Langergraber and Muellegger (2005:435) argued that “EcoSan represents a holistic approach towards ecologically and economically sound sanitation and is a systemic approach as well as an attitude”. The current challenges in countries across the globe indicate that a change towards sustainable waste management is a prerogative. Some of the advantages outlined in favour of ecological sanitation, according to Werner et al. (cited in Langergraber & Muellegger, 2005:435) are that it

- reduces the health risks related to sanitation, contaminated water and waste,
- prevents the pollution of surface and groundwater,
- prevents the degradation of soil fertility and
- optimises the management of nutrients and water resources.

2.5.1.3. Ecological sustainability

Research has shown that the underlying concepts of current trends in any ‘fashionable’ discoveries are sustainability and environmental friendliness. According to the World Commission on Environment and Development,

sustainable development is not a fixed state of harmony, but rather a process of change in which the exploitation of resources, the direction of investments, the orientation of technological development, and institutional change are made consistent with the future as present needs (Irwin, 2001:31).

One of the most important goals to be achieved by ecological sanitation is sustainability. In the opinion of Warburton (1998:3), humanity has the ability to make development sustainable, which means to ensure that it meets the needs of the present without compromising the ability of future generations to meet their own needs.

2.6. Limitations of Current Conventional Sanitation Systems

According to Unesco (2006:4), current conventional sanitation systems are based on water-borne sewerage. In addition, they require huge investment to establish as well as to operate. Even pit latrines found in most rural areas in developing countries are causing ground water pollution. Research has shown that the bulk of the sewage in fast growing cities in developing countries is dumped, untreated, into fresh water sources. Furthermore, due to lack of mainly adequate human and financial resources, improvements in the sanitary situation in towns with

sewerage cover only wealthy sections of the population (Unesco, 2006:5). Water usage in these systems is often unprecedented, already stressing depleted fresh water sources in the world. Even years after the conventional water systems were implemented, they have failed to make a significant impact on the backlog of nearly half of the world's population (Unesco, 2006:4). Obviously, there is a need for alternative sanitation systems which are cheap, accessible and have little or no impact on the environment.

2.7. Health Risks Associated with Ecological Sanitation

Despite the plausible benefits, as well as sound environmental gains, associated with ecological sanitation, concerns have been raised in terms of its health risks. According to Winblad and Simpson-Hébert (2004), one of the main goals of ecological sanitation is to capture nutrients present in human excreta and recycle them back into agricultural production. However, human excreta contain pathogens which cause diseases. Feachem et al. (cited in Langergraber & Muellegger, 2005) stated that the majority of pathogens are found in human faeces. Winblad and Simpson-Hébert (2004) argued that urine contains fewer disease producing organisms than faeces. Special conditions under which urine is stored can result in the reduction of pathogens, rendering it safe for agricultural purposes. The most effective way to reduce transmission of pathogens from one stage to the next is to form barriers between faecal matter and flies as well as the human environment.

Successful ecological sanitation systems should follow necessary environmental strategies to kill pathogens so that the excreta can be safe for handling. These include increases in storage time, temperature, dryness, pH, ultraviolet radiation and competing natural soil organisms (Winblad & Simpson-Hébert, 2004). Research has shown that if these strategies are followed properly, pathogens can be effectively destroyed. In addition, basic hygiene, like washing hands, complements such strategies. It is apparent that ecological sanitation systems require

comprehensive community participation, promotion, training and resources to be effective and efficient.

2.8. The International Experience of Ecological Sanitation

Ecological sanitation technologies have been used successfully across the world, especially in countries like Vietnam, China, Mexico, El Salvador, Ethiopia, Zimbabwe and South Africa since 1997 (Duncker et al., 2006:11). Though these technologies differ, they are all based on re-using human waste for agricultural purposes. Using the urine-diversion units, for example, people in Mexico have been able to use fermented urine as fertiliser.

Community participation, according to Duncker et al. (2006:11), was vital in the pilot project implemented by the Eastern Cape Appropriate Technology Unit (ECATU). In this project, three communities around Umtata, and 10 households in each community, were identified by the community members themselves as target populations. Though the level and extent of participation is not clear, it is important to note that the community was involved at a certain level. The eThekweni Municipality also ran ecological projects with the assistance of the Mvula Trust in Durban (Duncker et al., 2006:11).

Additionally, Jackson (2005) reported that many governments and agencies in Africa are exploring the role of ecological sanitation (EcoSan) in their environmental sanitation and hygiene improvement programmes. However, despite convincing environmental and economic reasons to support this approach, acceptance of the technology has been limited so far. Due to lack of adequate research into the actual social causes of this scenario, researchers concur that more need to be done.

2.9. Legislative and Policy Framework for Participation in Zimbabwe

Section 4 of the Environmental Management Act (EMA) (Zimbabwe Constitution, 2005. Chaps. :20:27) affords every citizen of Zimbabwe the right to live in a clean environment that

is not harmful to their health. Furthermore, every citizen has the right to participate in the implementation of the legislation and policies that prevent pollution, environmental degradation and sustainable management and use of natural resources, while promoting justifiable economic and social development.

According to a recent Sanitation Communiqué (2008), delegates at the Building Lives through Improved Sanitation in Zimbabwe Symposium agreed to take action on sanitation woes in the country. According to the petition, there must be a change from the ‘business as usual’ approach, to the need to address critical sanitation issues. It is important to note that delegates agreed on the necessity of meeting the MDG target by 2015. One of the resolutions of the Sanitation Communiqué was to “open up a menu of sanitation technology options allowing for community led incremental development” (Sanitation Communiqué, 2008:1). From this assertion, one can conclude that the government is committed to sanitation projects, which take into cognisance of active community participation. The Communiqué’s commitment to resuscitating water and sanitation institutions at all levels, including water and sanitation sub-committees at national, provincial, district and sub-district levels, shows national effort towards addressing sanitation problems.

Of concern though is the fact that most of these commitments might not materialise if not accompanied by full community participation as well as financial commitment. Research has shown that strategies developed at national level without proper consultation at grassroots level are sometimes not successful.

2.10. Concluding Remarks

This chapter dealt with different perspectives of development and how this has impacted the general understanding the need to rethink the concept in the context of effective change. The theoretical framework was provided, focusing on how the main theories failed to explain underdevelopment, before giving birth to alternative development.

The people-centred approach was mainly discussed, focusing on its main tenets. It was shown that for every development initiative to be successful, participation is vital. The other section of the chapter focused on the definition of concepts, especially the ones central to the study, sanitation and ecological sanitation.

The chapter basically showed that the proponents of participatory approaches to development portray it as a centrepiece for achieving sustainable development in communities. It suggests that failure to fully involve communities results in failure of developmental projects, an argument central to this research. The chapter also provides the foundation upon which other chapters are built. Chapter 3 builds upon this as it goes on to provide an in-depth discussion on the case study area.



CHAPTER 3: OVERVIEW OF THE CASE STUDY AREA: THE DANGA ECOLOGICAL SANITATION PROJECT IN THE ZVISHAVANE DISTRICT, ZIMBABWE

3.1 Introduction

In this chapter, some background information and detailed description of the case study area of Danga in the Zvishavane district of Zimbabwe will be provided. A general overview of Zvishavane will be given, followed by a detailed description of the area. Institutional arrangement, social characteristics, and economic activities as well as an analysis of stakeholders will be done.

The methodology used consists of documents supplied by the Runde Rural District Council; transect walks, focus group discussions and informal interviews. The local councillors provided the researcher with ward profiles which had up-to-date information of households and relevant socio-economic information. During focus group discussion, the researcher managed to conduct some informal interviews with elders of the community concerning the socio-economic background of the Danga community. The researcher also undertook transect walks to consolidate information already supplied on the physical characteristics of the community. Respondents for interviews were selected as indicated in the methodology section in Chapter 1.

The last section of this chapter describes the Danga Ecological Sanitation Project. The implementing organisation Mvuramanzi Trust is also discussed. Technologies used in the project are clearly indicated. An in-depth discussion of the project is given, including the objectives, training of builders as well as the monitoring and evaluation of the project. The researcher used mainly secondary sources on the project description.

3.2.1 Brief overview of the case study area

Zimbabwe is a subtropical country located in southern-central Africa with a population of about 12,463 (Mukheli, Mosupye & Swatuk 2002). Zvishavane district is found in the Midlands's province and is well known for its mineral abundance (UNICEF, 2008).

Runde Rural District Council (RRDC) stretches from the south-east on the confluence of Runde and Ngezi rivers (which is close to Buchwa; Mberengwa district) and Chivi to the south-east. It stretches to the Guruguru Mountain in the north--the boundary with Tongogara Rural District Council (Shurugwi District). To the west and north west is Insiza district, which stretches from Mberengwa, Somabula and De Beers Ranches. The map below shows the wards in the Runde Rural District Council. There are a total of 18 wards, and Shavahuru ward, where the Danga community is found, is shown as Ward 9. The map below shows administrative provinces of Zimbabwe and the position of Zvishavane.

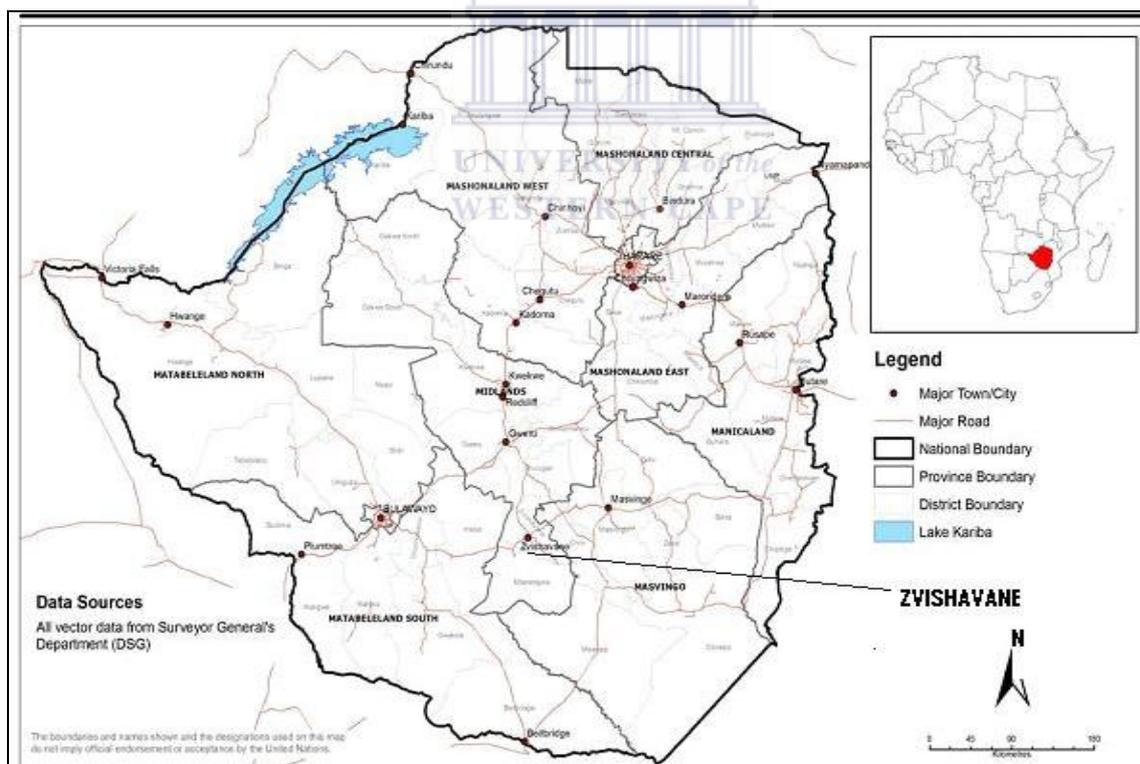


Figure 3: Location of Zvishavane, Zimbabwe (UN, 2009).

3.2.2. Description of the area

In this section, a detailed description of land, vegetation, rainfall, water supply and housing is given.

3.2.2.1. Land

Land ownership in Zimbabwe is complex and very contentious, as shown in the recent government-led, fast-track resettlement programme. Section amendment number 16A of 2005 of the Zimbabwean Constitution stresses the fact that “under colonial domination the people of Zimbabwe were unjustifiably dispossessed of their land and other resources without compensation”, encouraging the people of Zimbabwe to reassert their rights over land (Zimbabwean Constitution, 2005:16). This describes the national government’s approach to land ownerships. There is still no clear distinction of land ownership in communal areas. The British government’s directive to the settler authority that it create Native Reserves in 1898 was the birth of current communal areas (Mbiba, 2001). These reserves, for Mbiba, were ecologically marginal areas (regions 4 and 5), hence not sufficient for the economic and subsistence needs of the Africans. In these reserves, a 20%-30% core group ‘owns land’, but without freehold title.

Mutema (2003) argued that under the customary tenure system found in Zimbabwe's communal areas, authority over land is exercised by chiefs with the help of councils of elders. With the assumption that checks and balances occur, Mutema argued that the system may not work in instances where land becomes a scarce resource. Another dimension of land ownership in communal areas is the fact that women cannot own land or the output of their work, but both are owned by absentee husbands who work in towns or nearby mines (Gaidzanwa, 1994, cited in Mbiba, 2001). Men dominate decision making and land allocation, with women remaining as the actual tillers of land. The Danga community falls under the Native reserves and land ownership is largely communal.

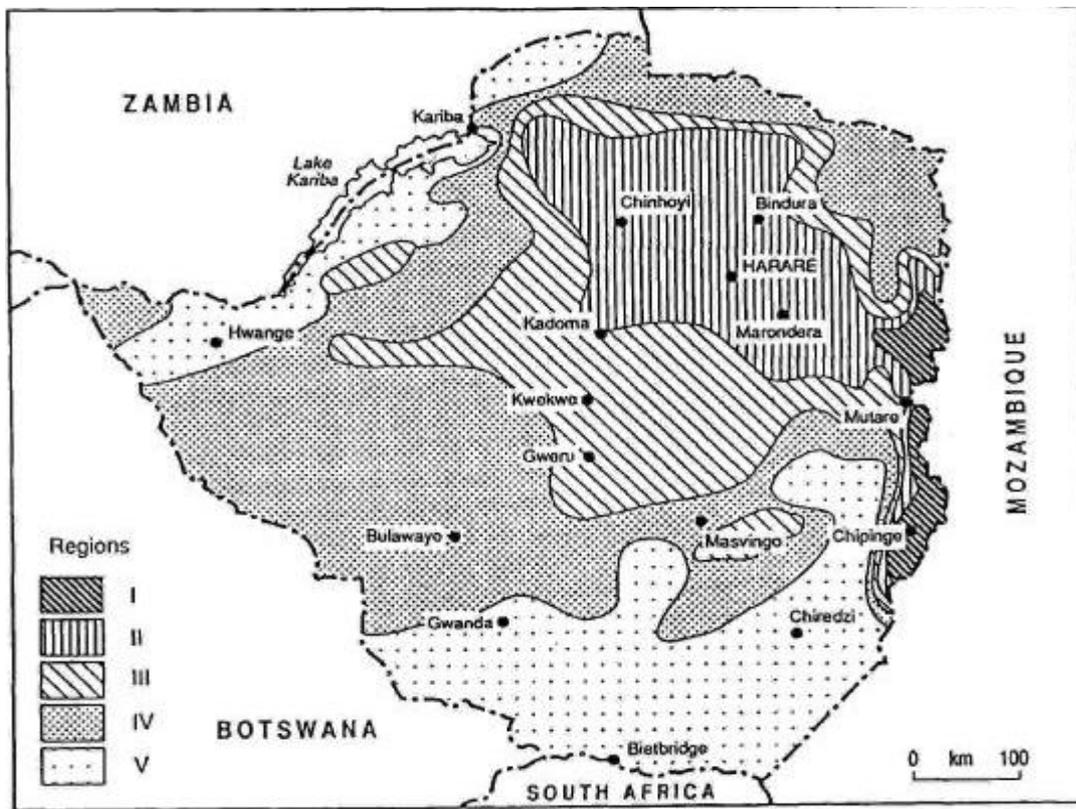
Though the recent fast-track resettlement programme might have eased pressure on overcrowding and other negative impacts to the environment, the land remains overstretched and characterised by poor agricultural productivity.

3.2.2.2 Vegetation

Savannah dominates much of Zimbabwe's landscape. Through transect walks and information supplied by community elders, it was learned that the area has been covered by all sorts of vegetation a few decades ago, but at the moment due to deforestation and overgrazing, the whole area is bare. Indigenous vegetation dominates the landscape, but there is also an attempt to reclaim the land by planting exotic trees like gum trees. Among the indigenous plants we find *musasa* trees, acacia bushes and other vegetation found in natural region IV of the country.

Population growth inevitably leads to devastation of vegetation. As Giddens (2001) pointed out, to grow crops, land must be cleared, trees cut down and clearings made, and this will inevitably lead to serious land degradation. The Danga community has increased in population since colonial times, which has placed huge pressure on vegetation. Since the only source of energy is firewood, increase in population also meant an increase in deforestation.

During our transect walks, the elders pointed out areas which were once covered by thick vegetation, which now appear rocky, bare and scarred by gullies. As a consequence, one of the elders argued that there has been an increase of flash floods during the rainy season, even though less rain had fallen.



Region	Areal Extent (Million Ha)	% of total	Description
I	0.62	1.6	<i>Specialised and diversified farming:</i> High annual rainfall (> 1000mm). Temperature <15°C. Suitable for dairying, forestry, tea, coffee, fruits, maize, beef ranching.
II	7.31	18.8	<i>Intensive farming:</i> Annual rainfall 750-1000mm. Ideal for rain-fed maize and tobacco, beef, cotton, winter-wheat and vegetables
III	6.85	17.6	<i>Semi-intensive farming:</i> Annual rainfall 650-800mm, mostly as infrequent heavy storms. Severe mid-season dry spells. Marginal for maize, tobacco and cotton. Favours livestock production with fodder. Requires good management to retain moisture during growing season.
IV	12.84	33.0	<i>Semi-extensive farming:</i> Annual rainfall 450-650mm, subject to seasonal droughts and severe dry spells during the rainy season. Found in hot, low-lying land. Marginal for rain-fed maize. Ideal for drought-resistant fodder crops
V	11.28	29.0	<i>Extensive farming:</i> Annual rainfall < 450mm and too low and erratic for most crops. Very hot, low-lying region. Suitable for animal husbandry with drought resistant fodder crops under irrigation. Zambezi escarpment: this region is infested with tsetse fly.

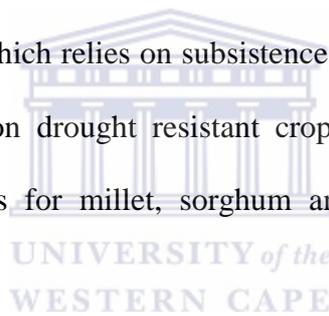
Figure 4: Vegetation and natural regions of Zimbabwe (PlanAfric, 2000).

Figure 4 shows that Zvishavane, and thus the Danga community, lies in natural region IV, which receives less than 650mm of rainfall and is prone to seasonal droughts. For the purpose of the study, this shows that the community is vulnerable since it relies on subsistence farming for survival. Lack of food, for example, negatively affects household's access to other basics, and all the income is used to purchase food.

3.2.2.3. Rainfall

Just like the majority of communal areas in Zimbabwe, the Danga community lies in natural farming region IV. This region is characterised by erratic rain, seasonal droughts and severe dry spells during the rainy season. Four seasons are experienced in Danga, with the rainy season between October and March.

In one of the focus group discussions, participants indicated that the rainfall is generally inadequate for the community, which relies on subsistence agriculture. Community members are encouraged to concentrate on drought resistant crop production. Donors also supply community members with seeds for millet, sorghum and other drought resistant maize varieties.



3.2.2.4. Water supply

Most of the informants alluded to a general shortage of domestic water in the Danga community. The same applies to water for livestock, especially during dry seasons. Unprotected rivers and springs are used as water supplies. In some cases, drinking water is often supplied by wells directly from groundwater. Contamination from animal manure and latrines remains a challenge, hence the need to improve the structures of most of these wells (FitzGibbon, 2000).

According to District Wash Inventory 2010 (Zvishavane District, 2010), out of total of 28 water points in Shavahuru Ward (both boreholes and wells), only nine are reported as fairly functional. According to the informants, the fairly functional water points are so unreliable

that most community members opt to use other unprotected sources, such as rivers. Through an integrated health programme, some community members were trained to service boreholes. This project was funded by Bethany Project, Oxfam GB, the Zimbabwean Ministry of Health and the District Development Fund.

3.2.2.5. Housing

In Danga, the majority of houses are huts, constructed with bricks or poles covered with mud. According to a village profile provided by the Runde Rural District Council (2009), 58% of the houses are thatched, while 42% are modern houses with asbestos sheets or zinc for roofing. A typical homestead consists of a main house, constructed with bricks, and several huts, a granary, a fowl run and a kraal for cattle and goats. Since there is no electricity, a few houses have solar panels for lighting and other purposes, while the rest rely on firewood.

All these statistics show that in the natural environment in the Danga area of Zvishavane, Zimbabwe does not adequately support the people. In addition, the natural resources are so depleted that what used to be the source of supplementary livelihoods is no longer available. These factors reinforce the thesis of this study, that of sustainable development as well as exploring new ways of addressing development.

3.2.3. Social Characteristics

3.2.3.1 Institutional framework and social stratification

According to PlanAfric (2000), the country is governed on four levels. The national level constitutes the central government, which is subdivided into several ministries. PlanAfric noted that no clear, co-ordinated national rural development strategy exists, so there is no integration of policies. The central government does medium- to long-term planning by outlining the national plan. This is where broad goals like land reform and poverty alleviation are conceived (PlanAfric, 2000). Zimbabwe is also subdivided into eight administrative provinces, each of which has a Provincial Governor, Resident Minister and Provincial

Administrator. There are 57 rural district councils in Zimbabwe, which form the third tier of the province and, lastly, there is the sub-district level. The sub-district constitutes the traditional leadership, elected councillors as well as political leadership. According to Mbereko (2010), the communal areas in Zimbabwe are characterised by multiple structures: government, political and traditional. The local authorities are composed of elected councillors resident in each ward.

Resource management falls under government departments, rural councils and traditional leadership. The Danga community falls under the Chieftainship of Masunda, Headman Danga and Ward 9 or the Shavahuru ward. These authorities have overlapping duties in ensuring administration of the district. From land allocation to dispute resolution to resource management, there is sometimes duplication and overlapping of responsibilities. The diagram below represents a simplified institutional arrangement and levels of authority in a typical Zimbabwean communal area:

Zimbabwean communal area:



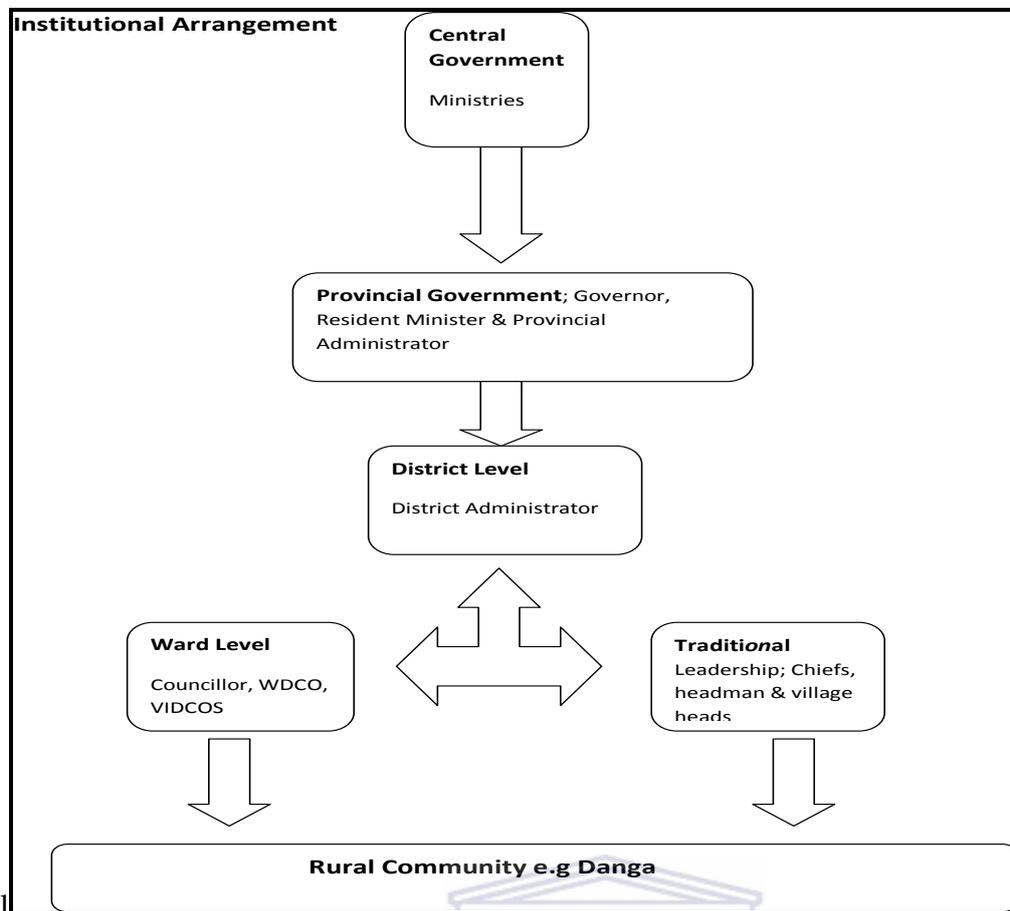


Figure 5: Institutional arrangement and levels of authority in a typical Zimbabwean community. Source, Sibanda, 2011 (Unpublished).

As can be seen from Figure 5, strong reliance is placed on the central government, and a top-down approach is applied in development initiatives. Political interference in all spheres of the community is tangible. This is sometimes very difficult for organisations which intend to work with communities, hence the suspension of all humanitarian activities in Zimbabwe during the run-up to elections in 2008 (UN, 2009).

3.2.3.2. Education

There are three schools in the Shavahuru ward: Danga Primary School, Wasima Secondary School and Bera Secondary School. The table below shows school enrolment in 2008:

Table 1: School Enrolment in 2008

Name of School	Teachers	Orphaned and Vulnerable Children(OVCs)	Boys	Girls	Total
Danga Primary	28	136	317	285	602
Bera Secondary School	12	13	169	165	334
Wasima Secondary School	11	66	49	56	105
Totals	51	215	535	506	1041

Source: Runde Rural District Council Ward Profile, 2009

Current research suggests that due to severe droughts and other political and socio-economic hardships faced by the country in the past decades, there has been a huge decline in the education system. Most schools have been affected by a shortage of teachers and unprecedented levels of dropouts over the past five years.

Enrolment has generally dropped in most schools, and there has been a sharp rise of OVCs. The increase of OVCs reflects the deep poverty and desperate situation the community is currently experiencing (Runde Rural District Council Ward Profile, 2009).

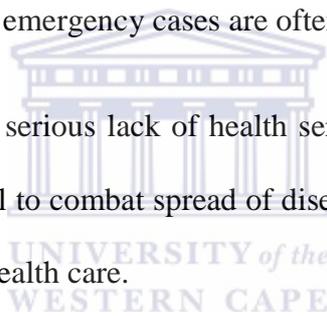
3.2.3.3. Health

There is no clinic in the ward, and as pointed out earlier, community members have to travel 10 kilometres south west to Mabasa Clinic, or 8 kilometres to the east to Zororai clinic. Both these clinics are serviced by a few registered nurses and assistant health workers. Danga has a total of five village health workers, of whom one is female and the rest are male (Runde Rural District Council: 2010). In addition, there is a total of 34 community based counsellors (Runde Rural District Council, 2010).

HIV/AIDS remains the main challenge the community is facing and numerous cases are unreported. Deaths as a result of the pandemic are often labelled as ‘long illnesses’ or ‘witchcraft’. Through discussions with elders, the researcher was told that most of the cases are people who become sick in urban areas, then realise they cannot get help there, so the only option is to come and wait for death closer to family. The councillor for Shavahuru ward stated that there has been a rise of orphans and child-headed families as a result of HIV/AIDS.

Cases of diseases related to poor sanitation were reported, and these include diarrhoea, dysentery, bilharzias, typhoid and cholera. Most of the community members prefer using traditional herbs for such ailments, resulting sometimes in death. Community health workers and other older women trained as midwives play a vital role in delivering of babies. Given the distance to the nearest clinics, emergency cases are often dealt with in the community.

The information above implies a serious lack of health services in Danga. In situations like this, prevention is sometimes vital to combat spread of diseases and sanitation plays a crucial role as a foundation for primary health care.



3.2.3.4. Services and infrastructure

There has been a considerable improvement of services and infrastructure in communal areas in line with the government policy to redress imbalance inherited from the colonial era. This included a specific effort to develop district centres and growth points in communal areas in an effort to ensure greater access to markets and employment for the majority of the rural poor. According to the Government of Zimbabwe, “Investment in growth points will be given preferential treatment as part of strategy for the urbanisation and industrialisation of rural areas” (cited in Mbiba, 2001:434). The Danga community is serviced by Mabasa Growth Point, which is 10 kilometres to the south-west. Services found at Mabasa include shops, butcheries, grinding mills, a clinic, a police station and a school.

3.2.3.5. Rural-urban linkages and migration

Human migration is the movement of people from one place in the world to another, and this can be voluntary or involuntary (National Geographic Society, 2005). Migration can be internal (within the country) or external, that is outside the country. Traditionally, there has been movement of people from rural to urban areas in Zimbabwe, with males going to look for employment. Since 2000, there has been mass movement of Zimbabweans to neighbouring countries and across the world due to the collapse of the political and socio-economic structures (Phimister & Raftopoulos, 2007)

There are now linkages across space such as those between people, money, information and sectorial interactions, whereby activities classified as rural take place in urban areas and vice versa (PlanAfric, 2000). The colonial policy of 'Native Reserves' created labour pools which served the interests of the white settler economy. This policy was characterised by a migratory labour force, where large numbers of men left rural areas to work in urban areas. Mbiba (2001) stated that the African worker was considered a 'migrant', whose family would remain behind in the Native Reserve, where he was expected to settle permanently after a working sojourn in town.

The results of this research show that migration has negatively affected several households in the Danga community in the sense that old and young members of the family are left behind. Projects which need to work normally fail because there are no able-bodied people to carry out the tasks. Women-headed families are also common, where the husbands have left to work in towns. Decision-making processes are also affected; for instance, during one focus group discussion, Mai Chamuka said, "I cannot decide to put a structure in our homestead as that can only be done by my husband". In addition, decisions to build toilets also lie with males in the households, as indicated by the respondents.

3.2.4. The economy and livelihoods

The rural economy of Zimbabwe is strongly influenced by its ecology, land tenure and use, population density and land distribution (PlanAfric, 2000). Communal areas, such as the Danga community, were known as Native Reserves or Tribal Trust lands, which were set aside by the settler government for Africans. Rural District Councils have the power over new land allocations, while traditional leaders play a vital role. Subsistence farming dominates rural communities.

According to ward profiles provided by the Runde Rural District Council, the degree of poverty in the community can be seen in the following: no working capital, no livestock and agricultural machinery, poor houses, children dropping out of school and reliance on handouts. On the other hand, the better-off are seen as having basic agricultural equipment, and livestock, the ability to eat healthy foods as well as having educated members of the family. When considering official poverty measurements, one finds that even the well-off cannot be considered as well-off by international standards. However, the community still uses this approach to consider who has to benefit from various income-generating projects initiated by either government departments or non-governmental organisations.

Livestock, especially cattle, has been historically regarded as a sign of wealth in most rural communities across Africa, including Zimbabwe. According to Barret (1991), most cattle in Zimbabwe's communal herd are of the Sanga type, unimproved Mashona, or other indigenous types.

In recent years, due to recurrence of droughts, lack of chemicals for dips, and overgrazing, the Danga community has seen a huge decline in livestock numbers. In addition, socio-economic hardships have resulted in several households having to sell their livestock in order to survive. The table below shows the 2009 figures of livestock in Danga.

Table 2: Major Livestock Types in Danga

Livestock type	Number
Cattle	1220
Goats	1141
Donkeys	228
Sheep	6
Fowls	1070

Source: Village Profile Files, Compiled by Runde Rural District Council (2009)

Income-generating projects in the Danga community include an irrigation scheme, with about 20 members, who share a four hectare stretch of land. There are also 18 functional group gardens which focus mainly on the small-scale production of consumable vegetables. In addition, a small pottery club, constituted mostly of old women, produces some clay pots which are sold in the community both for cooking and storage purposes.

Other income-generating activities include gold panning along the Runde River, which dominates the landscape. Schools have reported students dropping out of school to engage in gold panning activities. The river also offers other opportunities like fishing and irrigation in small-scale gardening projects found along the river. The major source of income comes from remittances sent back to rural homes by migrant workers in towns, nationally as well as abroad.

3.2.5. Non-Governmental organisations (NGOs)

A few non-governmental organisations are running different projects at the time of writing. These include Oxfam GB, which focuses on livelihoods and public health; Care Zimbabwe, whose main area of focus is food distribution and the Zvishavane Water Project, which focuses on livelihoods.

As indicated earlier in the study, the decision by the Zimbabwean Government to suspend the operations of all non-governmental organisations in all parts of the country negatively affected and disrupted the lives of people (UN, 2009). Non-governmental organisations in the Danga community play an active role in the day-to-day lives of people. Political interference has been reported in the operations of NGOs, leading to cases of selected people who benefit from certain projects. The results of the study also indicated that the top-down approach is widely used in most development initiatives; hence, councillors and traditional leaders supply the lists of beneficiaries. In this case, aid does not reach the intended beneficiaries.

3.3.1 Background of the organisation

The Mvuramanzi Trust was formed in 1993 by a number of experienced sanitation specialists who were working at the Blair Research Unit in Zimbabwe. According to Proudfoot (cited in Moriarty et al., 2004), the problems of water and sanitation currently being experienced by the country were anticipated by the staff of the government research unit before they launched the Mvuramanzi Trust. Its formation was based on coming up with solutions that would be less expensive in terms of initial investment costs and would give a high degree of assurance on sustainability over the long run. Funding is received from Water Aid, SIDA, NORAD, Oak Foundation and UNICEF. Below is a pie chart which represents funding for Mvuramanzi Trust. The following figure shows the funding structure of Mvuramanzi Trust.

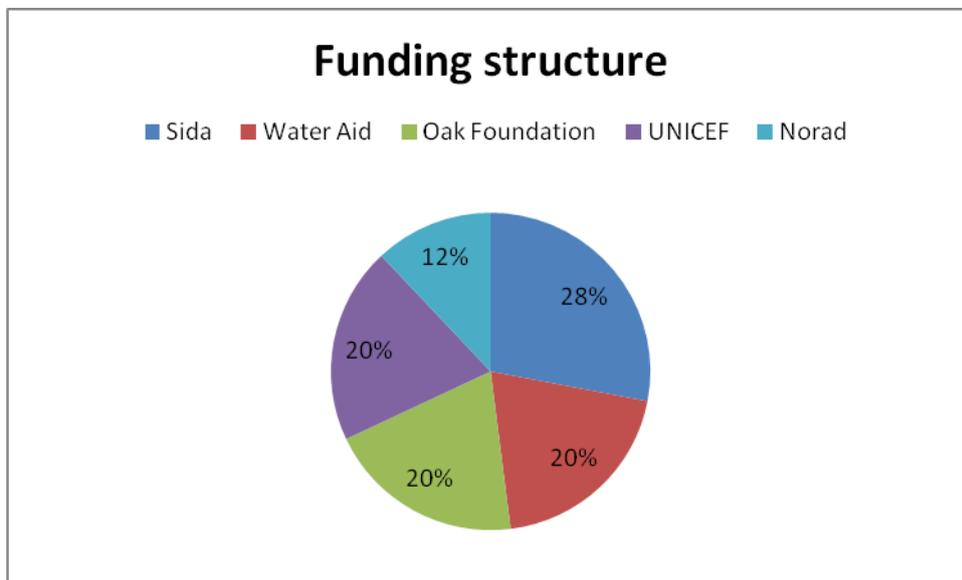


Figure 6: Funding structure of Mvuramanzi Trust.

Source: Data from Mvuramanzi Trust Annual Report 1996:4

As shown by the diagram above, a larger portion (28%) of funding is sourced from Sida, while Oak Foundation, Water Aid, and UNICEF each provide the same proportion (20%). Norad donates the smallest share (12%), according to the data above. Harare Rotary club has also been mentioned as providing funds for the Trust although its actual share is not included in the information above (Mvuramanzi Trust Report, 1996). This implies that the Trust relies on its partners for funding of its activities.

3.3.2. Objectives of Mvuramanzi Trust

Based upon the information obtained from Mvuramanzi Trust Report (1996) and AfDevInfo, (2006), the following are specific objectives of the Trust:

- Providing support and assistance to government and non-governmental organisations in implementing projects in the area of appropriate water supplies and sanitation in rural and peri-urban areas of Zimbabwe;
- Providing training in the water sector to communities and organisations;
- Acting as resource centre for the dissemination of information, knowledge and experiences in water supplies, sanitation and health and hygiene promotion; and

- undertaking applied research and development into appropriate technologies, implementation processes and training materials for health education promotion.

3.3.3. Approach used by the Mvuramanzi Trust

A former project officer with the Mvuramanzi Trust indicated that, from its inception, the Trust managed to work on water and sanitation through establishing clean sources of water, upgrading existing wells as well as building Blair ventilated toilets throughout the country. In its traditional mode of working in a district to promote water, hygiene education and sanitation, the Trust's main interaction is with the Rural District Council and the Ministry of Health and Child Welfare. The Rural District Council has ward councillors, who represent the community at ward and village level, and the Ministry of Health and Child Welfare has environmental health technicians (EHTs) at ward level (Moriarty, Butterworth & van Koppen, 2004). The EHTs work at village level through the village community and health workers. Furthermore, the Trust relies on these people (EHTs, community and health workers) to mobilise the community to participate in projects, and this is usually done through meetings (Moriarty et al., 2004). According to Esrey et al. (2001), the Ministry of Health and Child Welfare realised that ecological sanitation fits in with the current trends towards using a self-reliant approach that encourages rural families to dig their own wells and run their own vegetable gardens.

According to the Report, the Mvuramanzi Trust is collaborating with UNICEF in health and hygiene education promotion, using participatory methods. Their approach has been to involve the target communities in their projects. Besides constant research, the Trust has also been developing training manuals as well as training community members as builders in the projects.

Ideally, the Mvuramanzi Trust uses the SARAR concept which “thrives on the principles of non-directive, non-prescriptive, developmental, and learner-centred approach based on

people’s ability to analyse their own situation, make decisions on problem solving and action planning” (Musara, 2000:107). The SARAH concept stands for self-esteem, associative strengths, resourcefulness, action-planning and responsibility (Wood, Sawyer & Simpson-Hébert, 1998). In addition, the organisation uses creative, investigative, analytical, planning, informative and monitoring and evaluation methods in a participatory manner, which includes team building, establishing community institutions, investigation and problem analysis and the use and upkeep of the technology. The SARAH concept is also based on Participatory Hygiene and Sanitation Transformation (PHAST), which was unveiled in the 90s as the best participatory approach in introducing sanitation projects in communities (Wood, Sawyer & Simpson-Hébert, 1998). Figure 7 shows the PHAST approach ecological sanitation to programme implementation.

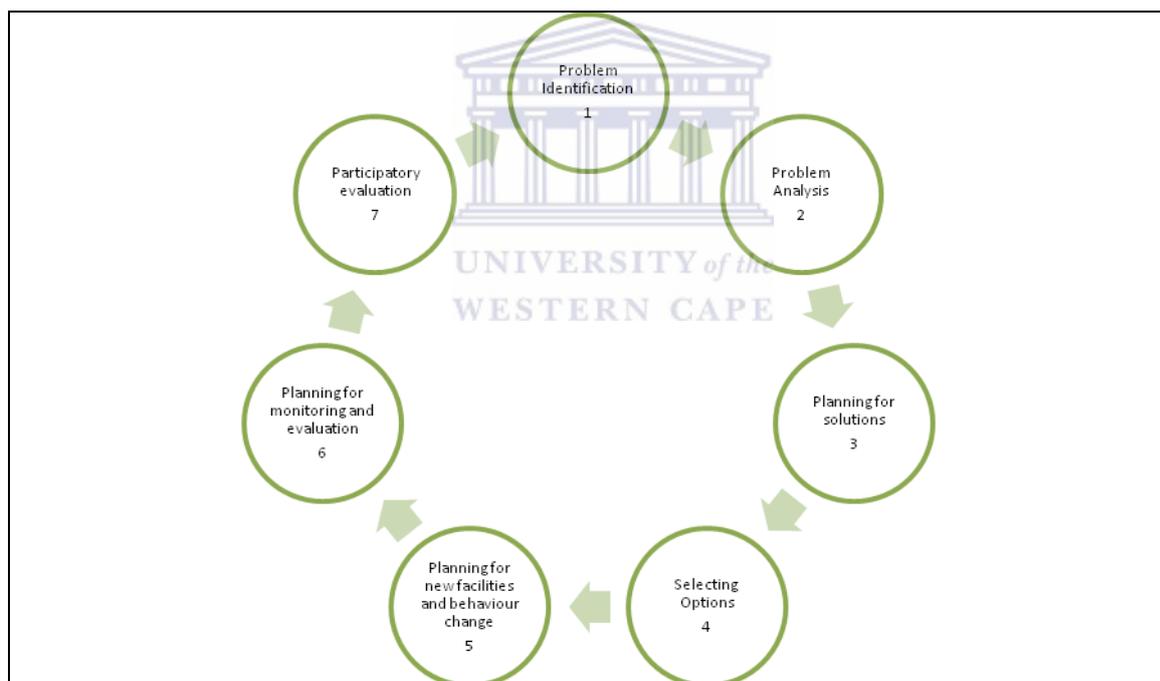


Figure 7: Participatory hygiene and sanitation transformation (PHAST) approach of programme implementation.

Source: Adapted from Wood, Sawyer and Simpson-Hébert (1998:12).

According to the Sustainable Sanitation and Water Management Handbook, PHAST “works on the premise that as communities gain awareness of their water, sanitation and hygiene

situation through participatory activities, they are empowered to develop and carry out their own plans to improve this situation” (Simpson-Hébert & Wood, 1998).

Based upon the information obtained from respondents, the team from the Mvuramanzi Trust and two officials from the Ministry of Health approached the local councillors, who in turn took them to the traditional chiefs. After an initial meeting with these traditional and political leaders, a meeting was called for the rest of the community at the local business centre. It was here that the concept of ecological sanitation was introduced. Like all other developmental projects done in the area, the concept was introduced by an eloquent and outspoken local leader. After introduction of the ecological sanitation, two workshops were planned aimed at fully engaging the local community in the new concept. These were planned at a local primary school, Danga Primary School.

Respondents also indicated that the workshops were run by facilitators and the community were divided into villages for easier approach. Using posters, brochures and other aids, the facilitators explained to the villagers the new concept. They also used examples from other parts of the country where the programme had been carried out successfully, such as Marondera and Hatcliffe.

During a discussion held by the project team, it was indicated that funding of the project was provided by Mvuramanzi Trust for the community members who would choose to have latrines built at their homesteads. Material like urine-diversion panels and chambers, as well as cement, for building the superstructure was provided by the Trust. Some unemployed youths were also trained as builders and these were chosen at the first workshop. Schools which were represented by teachers were among the first to welcome the new approach to sanitation. The households participated by contributing with labour and provision of locally available building materials like bricks and sand. A summary of a few responses is provided below:

Peter Nyaya (Ward Councillor): *Ecosan is going to change Danga Community; we are encouraging people to accept this new approach.*

Mr Siziba (School Headmaster): *This project came as a great relief; the old latrines we were using at our school were full and smelling so bad.*

Mai Chikwanda (Community member): *Mvuramanzi has filled a gap which our government has failed [to fill].*

Takura Zimboora (School pupil): *These toilets are so clean and they don't smell; we are glad to have them at Wasima.*

All these responses show that the community members regarded Ecosan as a new approach which was going to transform waste disposal and improve their lives through better sanitation. The community members welcomed the idea that they would contribute in terms of labour, as this also created a sense of ownership of the projects.

3.3.4. Description of the Ecosan technologies used in the project

With the objective of understanding the perception of the Ecosan technologies used in the project, respondents were asked to describe their understanding of the process, the dynamics of their experience, assumptions, judgments and suppositions within the context of the Ecosan project. Accordingly, trials on ecological sanitation were carried out in Zimbabwe from the late 1990s to the present. In trying to keep the technology simple and cheap, four basic types of toilet have been used in Zimbabwe. These are the modified Blair latrine, the Arborloo, the Fossa Alterna and the urine-diversion toilets. However in conducting this case study, only two types were used the modified Blair latrine (VIP) and the urine-diversion latrines, and the section below will focus on these two.

3.3.4.1. The modified Blair toilet

This is a compost toilet that has underground chambers that are more shallow and elongated than a conventional Blair latrine, which has three metre-deep pits (Andersson, Esrey, Hilliers & Sawyer, 2001). Andersson et al. (2001:24) further stated that “the shape of the chamber allows the contents to be more easily removed and recycled”. In addition, soil and wood ash are frequently added as this helps to promote composting and reduce bad smell and fly breeding. Just like a Blair latrine, it is fitted with a ventilation pipe to aerate the chamber and reduce moisture.

3.3.4.2. Urine-diversion toilets

This type of toilet has been widely used in Mvuramanzi Trust’s projects. Sometimes referred to as Sky-loo urine-diverting toilet, this consists of a toilet built with a vault above the ground to minimise the possibility of ground water contamination where the water table is very high (Guzha, 2002). The superstructure, either wooden or brick, is built on top of the vault. According to Guzha (2002), the sky-loo urine-diversion toilet is fitted with a urine-separating pedestal that diverts urine and ensures that urine and faeces do not mix. In addition, the separation of urine and the addition of soil and ash accelerate drying of faeces and create an environment that hinders multiplication of pathogenic bacteria (Guzha, 2002). The urine is diverted into pipes to which containers are connected and they are constantly emptied. Like the modified Blair toilet, vent pipes are used, which provide a constant flow of air to remove odour, control flies and dry the faecal material (Esrey et al., 2001). This type of latrine has been widely used at the following schools: Shiku Primary School, Danga Primary School, Bera Secondary School and Wasima Secondary school. The school Ecosan units were made in such a way that there is a single block with multiple units where urine is drained into either a soak-away or into 20-litre containers. Multiple vaults were also constructed to accommodate the volume of waste from the pupils using the latrines. The figure below represents a cross-section of a typical urine-diversion latrine.

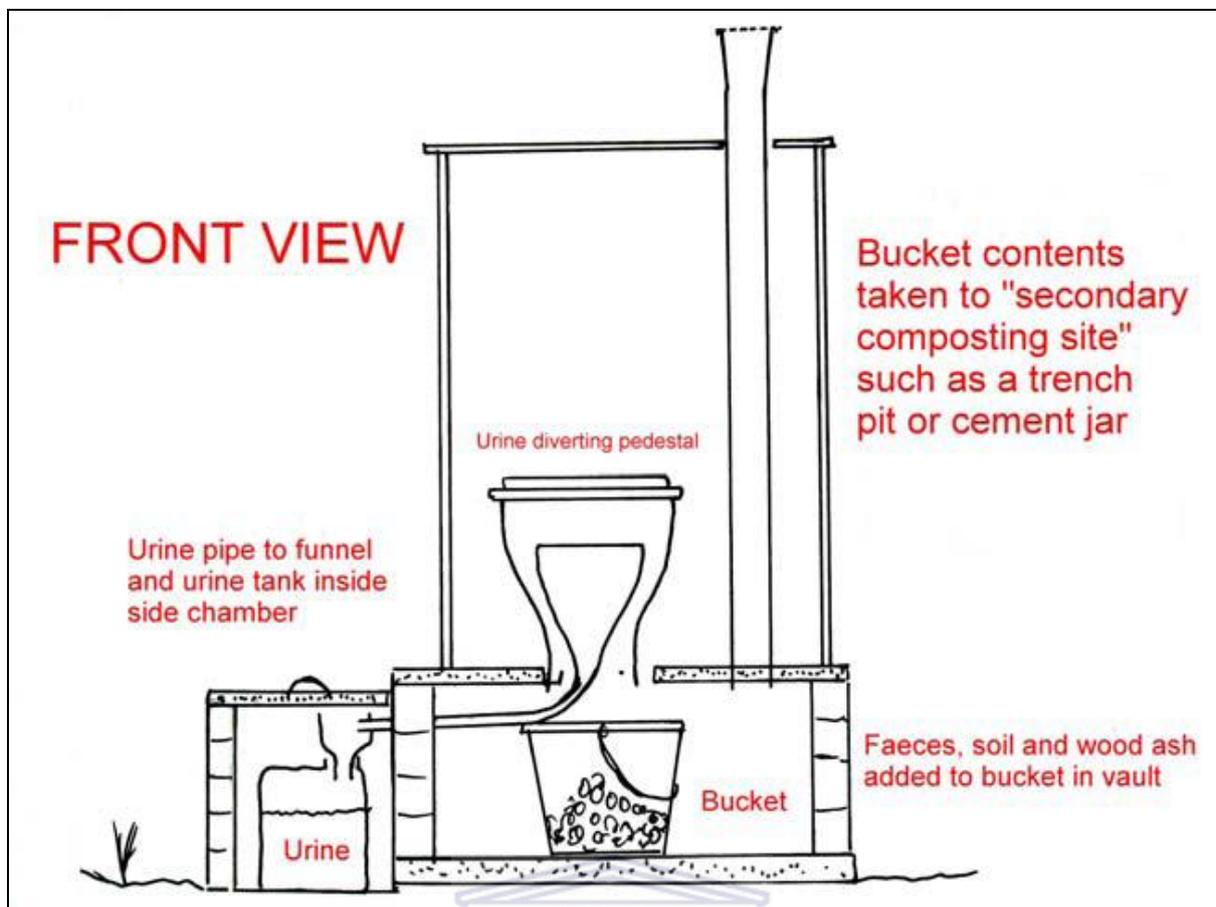


Figure 8: A cross-section of a typical urine-diversion latrine (Morgan 2007:5).

A further illustration of the squatting chamber with urine-diversion mechanism provided in schools around Danga Community is shown below:

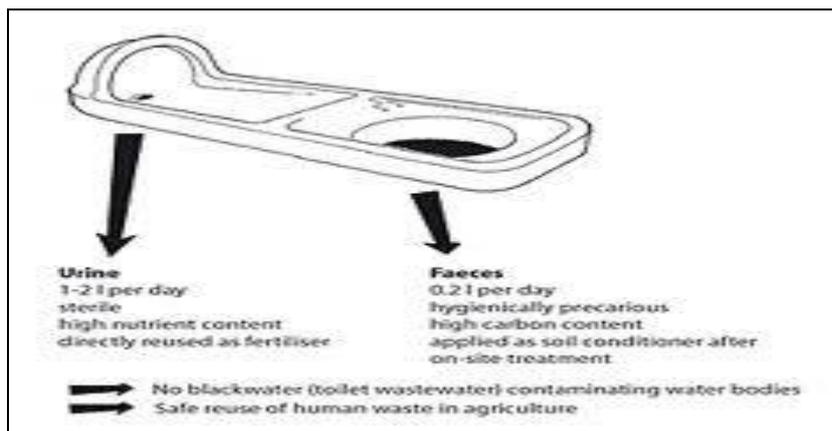


Figure 9: Squatting chamber with urine-diversion mechanism (Morgan 2007:5).

The above evidence demonstrates that the technologies developed by the Trust offered a practical solution to sanitation and, at the same time, were safe for the environment. However, respondents indicated that with regards to the specific chambers required for the technology, if households and schools were meant to purchase these for themselves, they would not be able to afford to do so. This implies that if the Trust were to pull out, the community members would not be able to afford to replace or continue with Ecosan toilets.

3.3.5. Training of builders

According to IEED (2010), as an end, participation is seen as the empowerment of individuals and communities in terms of acquiring skills, knowledge and experience, leading to greater self-reliance. Through training the builders, the Trust managed to achieve capacity building. Besides the community members benefiting from improved sanitation, those who were trained on how to build the latrines gained skills, hence ensuring continuity of related projects. In order to assess the presence of capacity building training activities, informants were asked different questions. According to the information obtained, Mvuramanzi Trust has provided training for local builders since its inception. Most respondents also indicated that the builder trainers and researchers developed training manuals for different sanitation technologies. In the case of the Danga Project, unemployed youth were identified by village community workers with help of traditional leaders. These youngsters were taken for training to a vocation training centre located just outside Zvishavane town. In the previous training for Blair VIP latrines, the duration of the training was approximately two weeks, but since ecological sanitation is a new technology, it was decided that the training should be extended by a week. The training is practical and the steps laid out in the builder manuals are followed. At the end of the training, manuals were handed to the builders and certificates of completion were awarded.

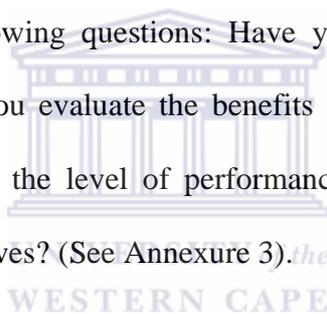
On completion, the builders were contracted to build the ecological sanitation units, starting with schools. Later on, before the project was brought to a halt, some households which had

volunteered had units built. All these responses show that there was some form of involvement of community members in the project.

3.3.6. Monitoring and evaluation of the project

Monitoring and evaluation is a very important aspect of community development, as it provides the opportunity for learning through action, in projects/programmes (Swanepoel & De Beer, 2006). Kellerman, (1997) observed that monitoring is a continuous assessment of the functioning of the project activities that allows early recognition of the social effects, in particular, which are regressive or incompatible with equity objectives and enables one to institute the necessary corrective measures. Shapiro (2001) noted that evaluation is the comparison of actual project impacts against the agreed strategic plans.

In order to assess the degree of participatory monitoring and evaluation strategies at the SBD, informants were asked the following questions: Have you taken part in monitoring and evaluation exercises? How do you evaluate the benefits of the project to you and for the community? How do you judge the level of performance in initiating and implementing activities, and meeting set objectives? (See Annexure 3).



Responses from interviews and focus group discussions, as well as findings from the analysis of project documents, showed that there was no participatory monitoring and evaluation. Respondents indicated that monitoring and evaluation were carried by the implementing organisation and they were not informed of the outcomes.

The following are some of the direct quotes from respondents:

We used to come and pick the councillor who would lead us to specific households and schools where the project was carried out (Project Officer).

We would see cars coming at our houses and we are told we checking on how we are using the latrines (Vimba, Chairperson of the Youth organisation).

They (Trust) would come at the schools and interview some teachers and school children on how they are using the latrines; we were not part of monitoring and evaluation process (Zinjiba, former Headmaster of Wasima Secondary School).

Officials from the project were constantly present during the implementation. Monitoring and evaluation were carried out by the Trust through its project managers. Visits to sites were made to check if building of units was done according to specifications. Parallel training was also done for community health workers, teachers and other community leaders on how to use the technology. However, the project was brought to an abrupt stop due to concerns for health. This came as a surprise since the Ministry of Health and Child Welfare was part of the project from its inception. At the end of the project, every school in the area had benefited by having at least two latrines built for school children. In addition, about 43 Ecosan latrines had been completed in the villages.

The above evidence demonstrates that monitoring and evaluation of the project was not inclusive of the community members. Shapiro (2001) maintained that participatory and evaluation monitoring pushes members of the community and the implementing agency to reflect on where they are going and how they are going to get there, as well as providing insights which will be helpful in future projects. It also empowers the community so that they learn from the project and possibly carry out successful projects in future.

3.3.7 Concluding remarks

This chapter began with a discussion of the case study area, Danga. Physical, social and economic (livelihoods) aspects of the community were discussed. Generally, observations reflected the Danga community to be very poor, judging by international standards. Reliance on subsistence farming leaves the community vulnerable during periods of drought. Respondents indicated that every year more than 60% of the community members needed food aid due to poor yields. Migration has also slightly helped as some community members

benefit from remittances sent by family members. Details of the Mvuramanzi Trust were also discussed, including its objectives and its role. The approach used by the Trust was said to be, theoretically, the SARA, but actual implementation was observed to be mainly a top-down approach, as discussed earlier in the chapter. Training of builders also benefited some community members, allowing for capacity building. On the other hand, lack of community involvement in the monitoring and evaluation process undermined the ability of the community to learn about the project.

The people-centred approach stresses participation as key to success of projects. The observations reported in this chapter clearly indicated that the approach used by the organisation was not totally inclusive. Analysis of the background of the case study also revealed entrenched poverty, with political figures and traditional leaders at the helm of decision-making processes.



4.1. Introduction

Active community participation is essential to empower and bring about sustainable community development at the grassroots level. Research in the field (Chambers, 2007; De Beer & Swanepoel, 1998; Estralla et al., 2000; Green, 2007; Rahman, 1993) clearly indicates that participating communities achieve greater citizen satisfaction in their community.

In this chapter, the implications of the results of the study conducted are reported, discussed, and analysed. The data from both individual and group questionnaires were coded, processed and analysed using the Statistical Package for Social Scientists (SPSS) and are presented in the form of frequencies, tables, graphs and charts. Discussion of the findings is also grouped in themes and the implications to the study debated.

Considering the importance and the relevance of the research topic, a combination of both quantitative and qualitative research methodology was applied. Data collection instruments included (i) a questionnaire and (ii) focus group discussion and an interview schedule that was administered by the researcher.

4.2. Quantitative Research Findings

In quantitative research, emphasis is placed on variables in describing and analysing human behaviour (Babbie & Mouton, 2001). This section will present the findings from quantitative data.

In total, 40 questionnaires were distributed to households, representing a total of 6% of the total number of households in the area under study. These were randomly selected from the voters' roll of 2005. The variables included age, gender, marital status, social characteristics and economic characteristics and livelihoods. In addition, suggestions and opinions of the community/project members were gathered using a questionnaire prepared for this purpose.

Data entry and analysis was done using statistical software SPSS. In order to arrive at conclusions, the degree of correlation between gathered information was used as a guiding principle and parameter.

4.2.1. Demographic characteristics

This section deals with information pertaining to personal characteristics such as gender of the respondents, age, marital status as well as details on the dependents of respondents.

4.2.1.1 Age

As illustrated in Figure 5.1 below, 16 respondents, which constitute 49%, were above the age of 60. Both age groups of below 18 and 36-60 had 18% of the respondents each. Only 15% of the respondents were of the age of between 19 and 35.

The above empirical evidence demonstrates that the community has older people as well as those of school going age but few in the intermediate range. This is attributed to high rural-urban migration. Another reason for this is that the majority of the youth have left the country because of the political and socio-economic crisis.

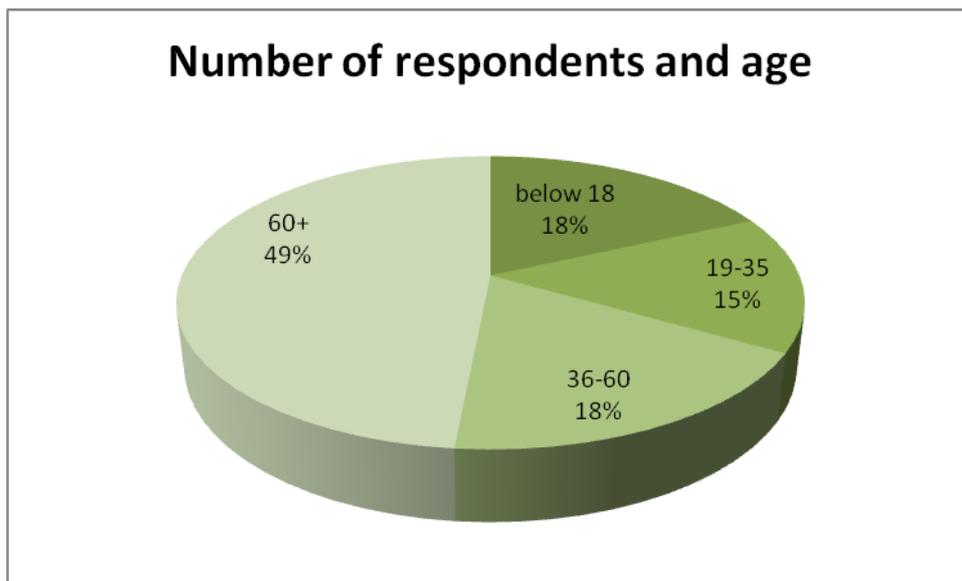
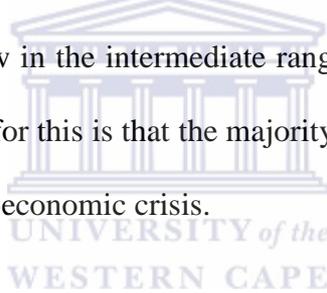


Figure 10: Distribution of respondents by age.

4.2.1.2. Gender and marital status

The majority of the respondents were female; of the 32 respondents, 23 were female and only 9 were male. This resonates with the point mentioned in the section on age that males are considered to be bread winners so they have either migrated to urban areas or left the country in search of greener pastures. This may also suggest that the majority of the families in Danga are female-headed.

A total of 14 respondents indicated that they were married, while 9 were single, 8 widowed and 1 did not complete the section. This alarming number of widows indicates the effects of HIV/AIDS, which is devastating the community. The others who are single indicated that they are still at secondary school level or have just dropped out of school due to lack of school fees.

4.2.1.3. Household head and dependents

Figure 5.2 below depicts the type of household heads of different respondents. Twenty households have women as household heads, while two are child-headed. Only seven households indicated that they have both parents, and three are headed by fathers. This represents a community which is imbalanced, with almost everything female dominated. The child-headed families reported that they had lost their parents, as a result mainly of HIV/AIDS, so the siblings were fending for themselves through subsistence farming.

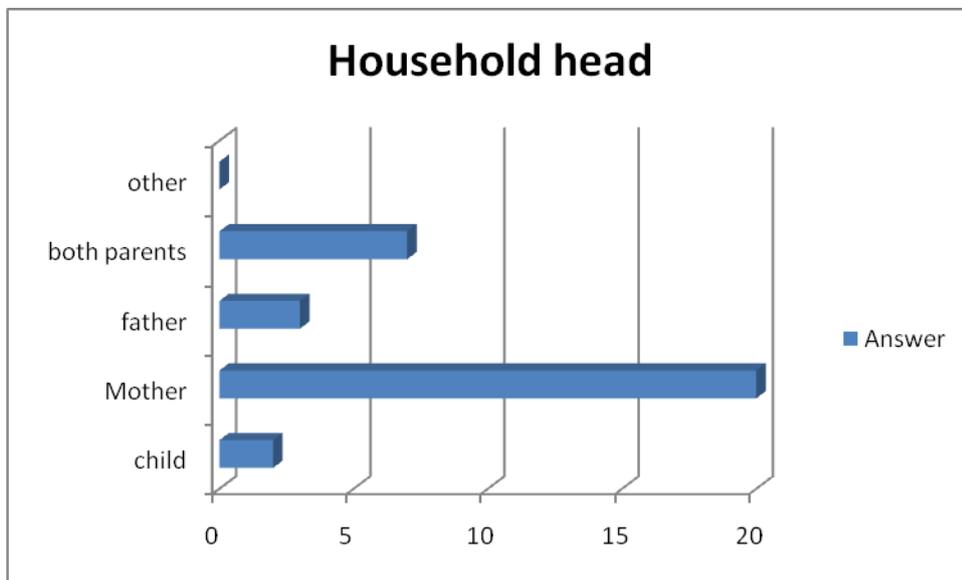
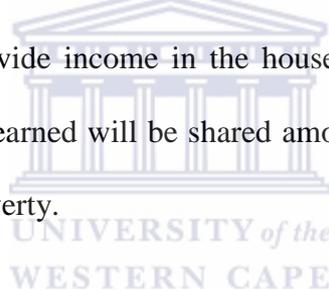


Figure 11: Household structure and dependents.

The numbers of dependents in each household are quite high, compared to international standards. Of the total number of families, 70% have more than six dependents, while 30% have between three and six. No families have fewer than three dependents.

This implies that those who provide income in the household are always overloaded with responsibility. The little income earned will be shared among a huge number of dependents, thus perpetuating the cycle of poverty.



4.2.2 Social characteristics

This section focuses on social characteristics of the respondents, and these include education, community organisation and health.

4.2.2.1 Level of education

The table and bar graphs below (Figure 4.3 and Table 4.1) represent the level of education for the respondents. None of the respondents indicated that they do not have formal education: 34.3% or 11 females have primary education, while only two males are in the same category, a total of 10 respondents have secondary education (ordinary level), two males have advanced level secondary education and a total of seven respondents have tertiary education. The fact that all respondents had formal education indicates the high level of literacy, also

reflected on national level. This is attributed to the pro-education drive by the government in the 1980s. However, the majority of females do not progress to higher levels of education, due to the bias of families for sending males to higher institutions, rather than females. Respondents with tertiary education indicated that they attended colleges of teaching, and they are retired or unemployed

Table 3: Level of Education

Level of education	Female	Male	Total
No formal education	0	0	0
Primary education	11	2	13
Secondary education(O Level)	8	2	10
Secondary education (A Level)	0	2	2
Tertiary (Degree/Diploma)	4	3	7

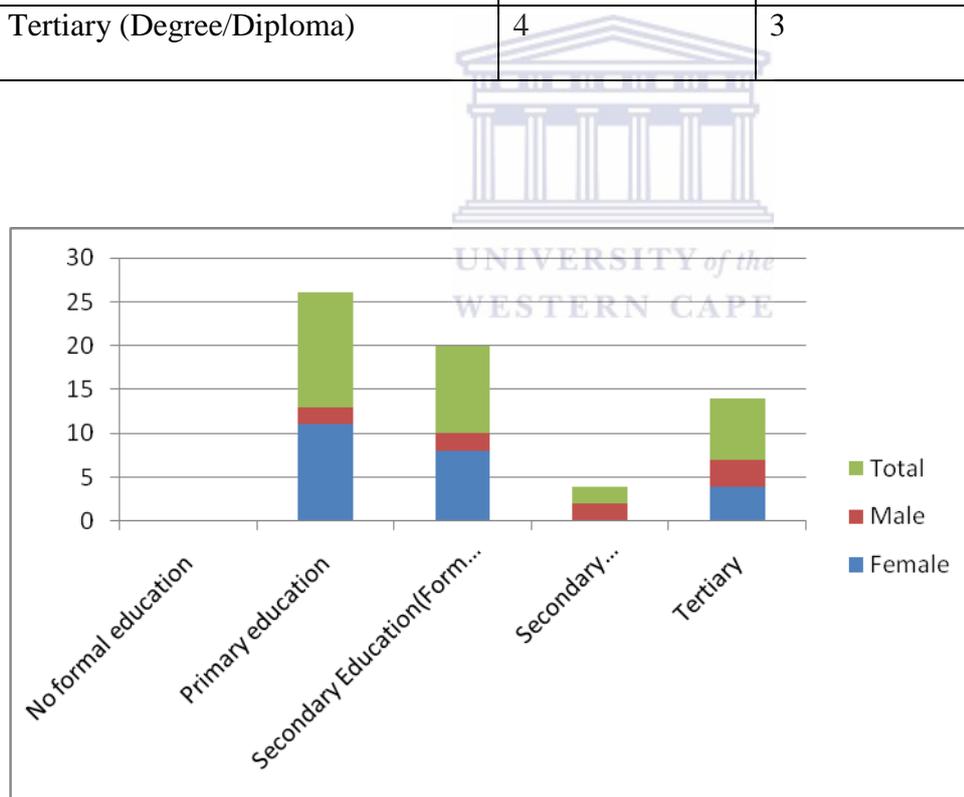


Figure 12: Level of education.

The level of education indicates that the majority of the community members are literate. This becomes an advantage for promoting health and hygienic practices. It is equally effective to distribute brochures or put up posters as community members can easily read. A

highly educated and literate community also provides a suitable environment to introduce developmental projects.

4.2.2.2. Community organisation

All respondents indicated that they belonged to certain community organisation: 87% said they belonged to churches, 15,6% to a burial society, 93% or 30 to political parties, and 81,2% are members of different community garden projects. Four indicated that they belonged to the Master Farmer Club run by the Ministry of Agriculture and Land Resettlement. It should be noted that some respondents indicated that they belonged to more than one community organisation. The fact that almost everyone (93%) belongs to a political party is attributed to the perception that for anyone to benefit from government programmes, he or she should belong to the ruling party. Respondents in the later sections also indicated that relief food was also given on a political party basis, hence failure to show one's political card meant no food. Only two young respondents indicated that they do not belong to any political party because "they do not trust politicians". Results show that Danga community members belong to different community organisations.

4.2.2.3. Health

The level of satisfaction on health service was rated to the level of five, each level represented by an 'emoticon' face: 27 of the respondents marked the very unhappy face, while four indicated that they are unhappy, and one indicated that he/she is not sure. This generally indicates that health systems have almost collapsed in the country. The other major problem is that there is no single clinic in the whole community, and they have to walk an average of eight kilometers to the nearest health facility. Health workers are overwhelmed and also poor qualified, and the community relies on traditional midwives in cases of births.

4.2.3. Economic characteristics

This section will focus on the economic characteristics of the Danga community, with specific consideration to employment and household income.

4.2.3.1 Employment

Figure 13 shows that 41% of the respondents were employed, while 59% were unemployed. Of the employed, four are informally employed, seven are formally employed, one is a contract worker and one a seasonal worker. The formally employed consisted of teachers, health workers and agricultural extension workers.

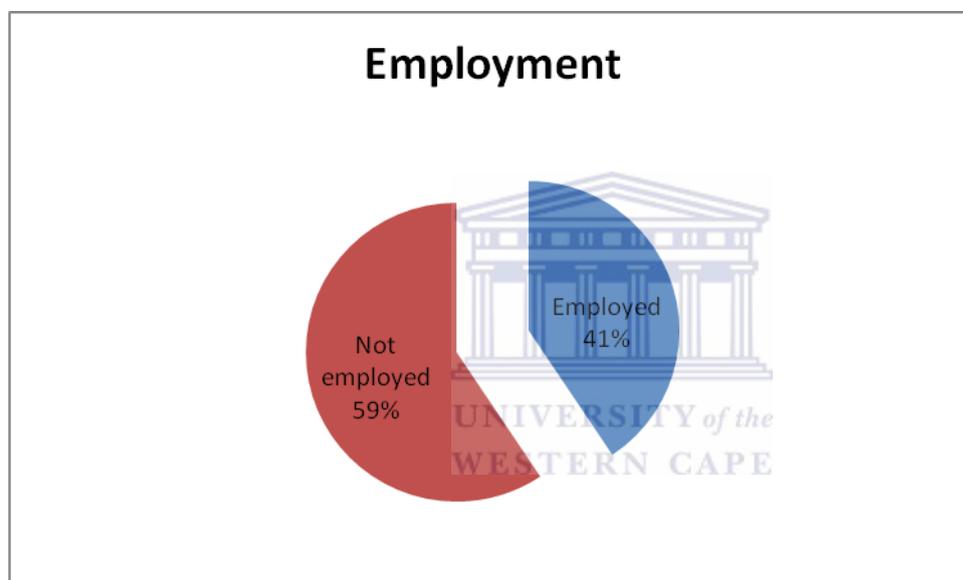


Figure 13: Employment.

The above evidence show that there is high unemployment in the Danga community and this will further be reflected in the following section on household income. This implies that most community members have no source of income, hence deepening the level of poverty. A combination of unproductive land, poor rainfall and unemployment leaves the community of Danga very vulnerable.

4.2.3.2 Income

The table above reflects a community considered ‘poor’ by world standards. In all, 21 respondents, or 65.6%, indicated that their income is below US\$50 per month, while 21.8% earn between US\$100 to US\$500 and only four earn between US\$50 and US\$ 100. Variations in individual earnings among the respondents can also be explained by the data on employment above. Those in formal employment earn higher than the rest. Furthermore, the column on total household income consolidates this fact. About 14 households of the total respondents indicated that their total household income was below US\$50, five indicated that they earn between US\$50 and US\$100, and the rest (13) had a total household income of US\$100 to US\$500. Discrepancies in earning are also reflected by gender, with almost all male respondents having the highest earnings as compared to female respondents. This can be explained by the fact more women in the Danga community are working in informal sectors and small scale businesses.

Table 4: Individual and Household Monthly Income

Monthly Income(US\$)	Individual monthly income	Total household monthly income
Below 50	21	14
50-100	4	5
100-500	7	13
500-1000	0	0
1000+	0	0

4.2.4 Livelihoods

This section will present findings on the livelihoods of the respondents. The findings on land ownership and livestock will be presented and their significance explained.

4.2.4.1. Land ownership

Of the 32 respondents who completed the survey, 19 or 59.3% indicated that they owned land, while 41.7% indicated that they did not own any piece of land. As pointed out in Chapter 3, land in Zimbabwe is owned by the government, and traditional leaders like chiefs and headmen are custodians of their respective areas. They have the authority to distribute the land among community members. The concept of ownership is therefore misunderstood since none of them had title deeds for their pieces of land. In terms of land size, those who 'own' have an average of 7 acres. None of them has above 10 acres. The family portions had become smaller as generations passed, as available land had to be shared among male siblings, especially those who married. It is important to note that some community members took the opportunity during Fast Track Land Resettlement Programme, spearheaded by the government at the turn of the 20th century to take nearby farms. It is unclear to what extent this could have relieved the pressure on the available community land.

All in all, community members have very small plots to sustain their families. This implies that families who rely on subsistence farming are always vulnerable to hunger and starvation as the land cannot produce enough. The fact that land is communally owned prevents commercialisation and possible investment.

4.2.4.2. Livestock ownership

The graph above represents livestock ownership among the respondents of the Danga community. All respondents indicated they owned at least one head of cattle, with two owning above 10; none indicated that they do not have goats, 9 had fewer than 3 goats, 14 had between 4 and 6 goats, while only 9 had above 10 goats. None of the community members had sheep, while 15 did not own donkeys, 4 had fewer than 3 donkeys, 9 had between 4 and 6 donkeys. 28 respondents indicated that they owned more than 10 fowls and every household had some fowl of some sort. Only one respondent indicated that they owned above 10 rabbits.

Chapter 3 showed that the Danga community lies in Natural Region IV of Zimbabwe. This region is characterised by very little rainfall, periodic droughts and sandy soils. This explains why most of the community members do not have above 10 herd of cattle, and also donkeys are a sign of dry regions.

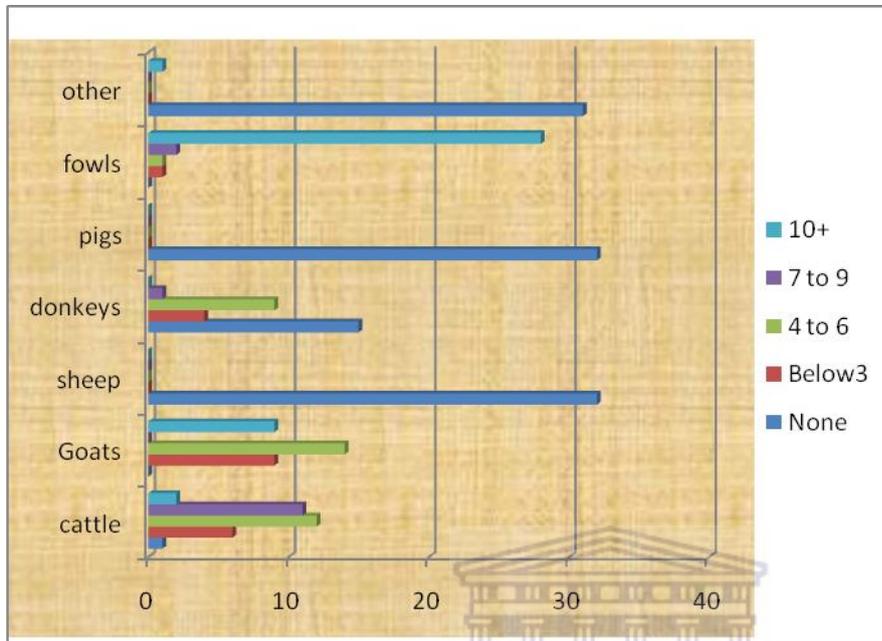


Figure 14: Livestock ownership.



4.2.4.3. Fertiliser usage

A total of 70% of the respondents indicated they used both organic and inorganic fertilisers, while only 30% indicated that they relied only on organic fertilisers. Due to rising costs of inorganic fertilisers, community members had to also rely on organic fertilisers like manure from livestock and compost. However, fewer livestock also leaves the community members with no choice but to purchase some inorganic fertilisers. Others indicated that they also relied on non-governmental organisations which provided communal farmers with fertiliser every year. Poor soils and little rain also contributed to the need for supplementary fertilisers.

4.2.5. Community participation

This section focuses on the level and the extent of community participation in different projects in Danga. It seeks to assess whether the community members know their political and traditional leadership as well as how often they attend local meetings and related activities.

4.2.5.1. Local leadership

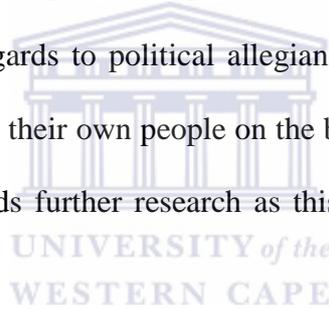
Data analysis from questionnaires showed that all the respondents indicated they knew their local councillors. Asked the function of a councillor, 93.75% of the respondents stated that a councillor's role is to represent the ward at council level. They also said a councillor leads development initiatives, whereas some pointed out that councillors were political figures whose job is to make sure people vote for the ruling party. Only 2 respondents, or 6.25%, indicated that they do not know the role of the councillors. Reason being they had seen benefits of having one in the community. On the level of satisfaction, 21 respondents indicated that they were happy with their local councillor, while two were not sure and nine were not happy at all. This data is represented on the pie chart in Figure 15 below.



Figure 15: Level of satisfaction with local councillors.

Almost the same trends are found with the local leadership, with all the respondents indicating they knew all their traditional leaders (these include village heads, headmen, and chiefs). All respondents also indicated that traditional leadership was effective. However, an important point they stressed was that these authorities were politically installed, hence what they say goes. In addition, interviews with these leaders, as shown later in the chapter, show that these traditional leaders are on the government payroll at an average of US\$20 a month, while chiefs earn above US\$200 per month, more than most civil servants, such as teachers.

The implication is that the ruling party uses this as a way of keeping rural communities under control. Political interference was found to be rife in most developmental projects. In addition, this hampers participation of ordinary members in community projects. As mentioned earlier in the study, the top-down approach used by the Trust results in bias as to who benefits, especially with regards to political allegiance. One respondent indicated that councillors and chiefs usually put their own people on the benefit list, hence undermining the purpose of the project. This needs further research as this is not the area of focus for this study.



4.2.5.2. Participatory structures and attendance of meetings

In order to assess the extent to which community members took part in the project related meetings and participatory structures the, scale of various variables were computed for attendance of meetings. Each of these scale variables was based on several elements.

Regarding attendance of meetings, 6.25% indicated that they never attend village meetings, another 6.25% indicated that they rarely attended, while 59.37% stated that they attended most of the time, and only 25% of the respondents indicated that they attended every time. One respondent, or 3.12% of the respondents, did not respond to this question. When asked to motivate why they attended meetings, respondents gave reasons like they were coerced,

wanted to improve their lives, and non-governmental organisations sometimes brought food, among others items. Those who do not attend stated that they are either sick or looked after their sick family members. Some said they get nothing from attending meetings where you always have to repeat the slogans of the ruling party. However, if meetings involve donors, community members are keen to attend. It is important to note that the structures the community members belong to include political party structures, burial societies, community garden groups, merry-go-round (*mukandirano*), farmer's co-operatives, school committees and church groups. Meetings are mostly held weekly but vary, depending on the purpose of the gathering.

4.2.6. Sanitation

This section focuses on the findings regarding the type of sanitation the community of Danga uses. Of the 32 respondents, 75% indicated that they use a Blair pit latrine, 12.5% an Ecosan unit, 3.12% use the VIP, while 9.37% use other forms like the bush. Huge numbers of households use the Blair pit latrine as result of huge promotions run by the Ministry of Health and Child Welfare in the 80s and 90s (Waterkeyn & Cairncross, 2005). Furthermore, almost all of these were subsidised by the state, and this has resulted as the dominant option on human waste disposal in rural areas around the country. Some households did not however benefit from these campaigns, as shown by households still using the bush. In addition, Ecosan is a new technology; hence the community might not familiar with its management.

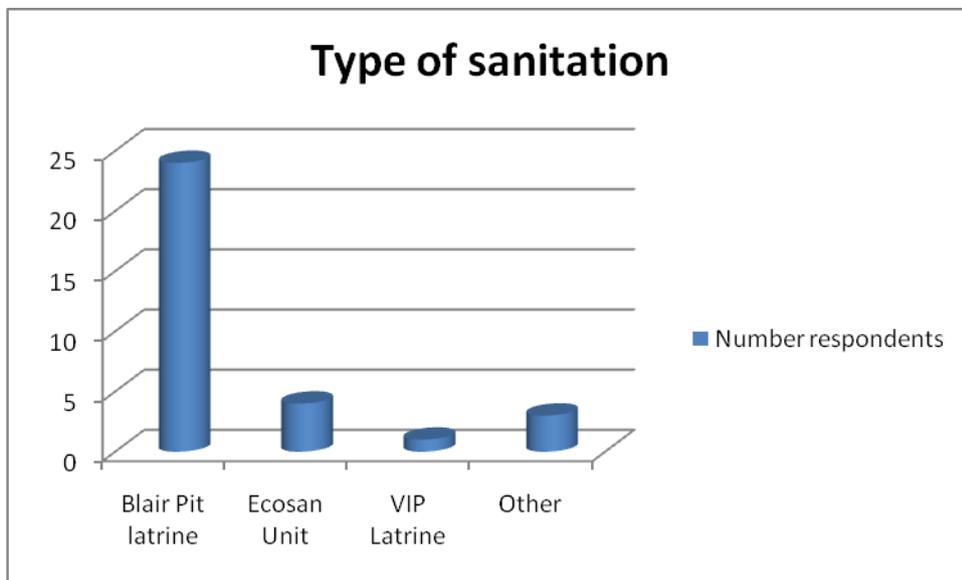


Figure 16: Types of sanitation used by the community in Danga.

This implies that the Blair pit latrine remains a popular choice of sanitation in the Danga Community. It also shows that Ecosan technology has not yet reached the majority of the households. In addition, introducing something new in communities is a gradual process; hence it takes long to be accepted.

4.2.7. Participation in the Danga Ecological Sanitation Project

According to Stiglitz (2002), development requires a change and change is often threatening. Participatory processes ensure that these concerns are not only heard, but also addressed and as a result resistance to change is dissipated (Stiglitz, 2002). Ecological sanitation is relatively new approach to sanitation, hence the importance of participation.

This section presents the findings regarding the Danga Ecological Sanitation Project. The main focus will be on participation in all stages of the project, that is, inception, planning, implementation, monitoring and evaluation. Respondents are also asked to provide recommendations for future such projects.

4.2.7.1. Participation in the Danga Ecological Sanitation Project

In order to understand and analyse the level of participation, respondents were asked about their experiences, attitudes and perceptions in the Danga Ecological Sanitation Project.

Based upon the data analysis, 90.6% of respondents indicated that they took part at any stage of the project, while 9.4% said they never took part in anything to do with the project. This scenario can be probably be explained by the fact that some of the respondents indicated that they never attended any village meetings in the section above. However, when pressed to reveal the extent of their participation, 27 or 93.1% of the respondents stated that they had partially participated. Two (6.9%) of them indicated that they are not sure. When the respondents were asked to indicate in what stage they participated, their responses are represented on the table below:

Table 5: Participation in the Ecosan Project

Level/stage of the Project	Number of respondents	Percentage of respondents
Conception	0	0%
Planning	7	24.2%
Implementation	19	65.5%
Monitoring and evaluation	3	10.3

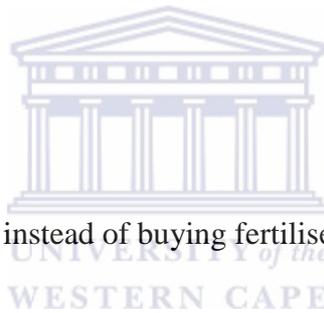
The results show that the majority of the community members were not involved in the conception of the project, and in the planning stage, which also very crucial, only 24.2% of the respondents indicated that they had been involved and only 65.5% community members were involved during the implementation stage. Furthermore, only 10.3% indicated that they were involved in the monitoring and evaluation stage. In addition, 85% of the respondents disagreed with the statement that “people in Danga community are always fully consulted every time a sanitation project is implemented”.

The respondents who indicated that they participated in different stages of the project were asked to describe their role during the project. Those who participated during the planning stage indicated that they did so because they took part in the workshops run before the actual implementation. Those who indicated that they participated during the implementation stage they did so through providing labour and locally available building materials like sand, bricks and stones for the building of the latrines. The rest of the materials were provided by the Mvuramanzi Trust.

4.2.7.2. Recommendations on participation in sanitation projects

As discussed in section 5.7 above, only 12.5% of the respondents indicated that they used ecological sanitation units at their homesteads. When asked about the benefits of the type of sanitation, most respondents (87%) indicated that there was need for such technologies because

- they are sustainable,
- they can use human waste instead of buying fertilisers,
- they do not smell, and
- they are cheap and simple.



However, 15% of respondents indicated that they were fully involved in all stages of the project thought they were fully involved, although there could be reasons behind this. They pointed out they are used to the government dictating to them what is to be done. Some did not mind since they were given something for free. Notable was that all the respondents agreed that there was need for improved sanitation in the community.

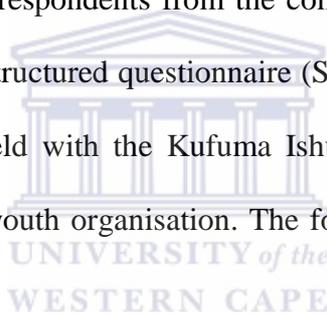
One respondent pointed out that politics need to be kept out of developmental projects. Some did not like the councillors or traditional leaders so they saw no reason to taking part in the

projects. Of the respondents, 20% raised the issue that there are far more important issues to address in the community, other than sanitation, and these include drought, food shortages and health facilities.

4.3. Qualitative Assessments Results

Mouton (2001) claimed that qualitative research helps in understanding the dynamics of people's experience, the structure of their lives, and their perceptions, assumptions, attitudes, behaviour, judgments and suppositions within the context of their social world. Qualitative research is crucial because it is subjective and provides a deeper understanding of human experience (Silverman, 2010). The qualitative research approach also helped to explore the level and extent of participation in the Ecosan project.

A total of 39 randomly selected respondents from the community (23 male and 16 female) were interviewed, using a semi-structured questionnaire (See Annexure 3). In addition, three focus group discussions were held with the Kufuma Ishungu Garden Group, the Nherera community garden group and a youth organisation. The following themes emerged from an analysis of these comments.



4.3.1. Focus discussions and semi-structured interviews

Three focus group discussions were conducted with the Kufuma Ishungu Garden Group, members of Garden yeNherera (Garden for Orphans) and HIV/AIDS In-School and Out-of-School Youth Forum. Some of the results from these focus group discussions have already been incorporated in Chapters 3 and 4. In this section, some important issues that were raised with regards to participation in community projects in general and more specifically the Danga Ecological Sanitation Project will be highlighted.

4.3.2. Participation in community projects

IIED (2010) contended that the typology of participation also highlights the shift in power over the process of development away from those who have traditionally defined the nature of the problem and how it may be addressed (governments, outside donors) to the people immediately affected by the issue.

In the first focus group discussion with the Kufuma Ishungu Garden Group, the group was comprised of two males, both over the age of 55, and nine females who were of an average age of 48. Most of the members were household heads, with the six females widowed or divorced. The group began as part of what was formerly known as the Farmers Club, initiated by the government as part of training communal farmers. After securing a piece of land to start a garden, the group contributed small amounts towards buying seeds, fertilisers and garden implements. Later on, funding from a non-governmental organisation Oxfam GB, helped to provide fencing for the garden.

In terms of leadership in the group, the chairperson is male, despite the fact that women dominate the group. According to Ms Mungati, decision-making processes are done by the group. Money collected from selling vegetables is used for expanding the project. Surplus money is divided among group members, where it is used to pay school fees and other family needs. It is important to note the project has been sustainable for such a long time because the community members started it and they constantly make decisions, depending on day-to-day issues that arise. Though power seems to be unbalanced in terms of gender, the women in groups seemed comfortable with the fact that final decision is made by the chairperson, who is male. This can be explained by the fact that the Danga community is largely patriarchal. The Kufuma Ishungu Group Garden members agree that sometimes politics interfere in the day-to-day activities of the project. They are sometimes asked to supply vegetables and pay money to fund ruling party functions.

The HIV/AIDS In-School and Out-of-School Youth Forum is a result of an initiative by Oxfam GB and other non-governmental organisations to raise awareness of HIV/AIDS. The group, which reports to the Ward Aids Action Co-ordinator is mainly comprised of young people from the community. During discussions which were held on two different occasions, the members pointed out the fact that it was difficult to maintain their activities because most of the youths were now living a 'nomadic' life. According to Vimba (chairperson), after finishing secondary schooling, most youths left for urban areas or other countries. Activities like organised sports events are normally sponsored by Oxfam GB. Lack of continuity and monitoring has resulted in missing funds, lost records and cancellation of training programmes offered to the youth. The group pointed that they only met when sponsors were around because they knew free food and sometimes money would be available. It appeared that participation in their own activities rested solely on the availability of money. Some of the feedback given by informants include the following:

Many people attend if they know there is food (Vimba).

Gatherings were well attended when there was provision of refreshments for the participants (Bethany Project).

The Garden ye Nherera Project was started by the Bethany Organisation, a non-governmental organisation sponsored by churches. During village meetings, the community identified an often neglected and vulnerable section of the community -- orphans. Due mainly to HIV/AIDS, most families are left with children as household heads. I expected the group to be made up of orphans, but to my surprise, this was not the case. According to the list of members supplied during group discussions, there were two teachers, a councillor and traditional leaders as well a handful of youths representing the orphans. Funding is given on a quarterly basis by Bethany towards securing necessities for the garden. When materials are bought, they are distributed to individual members who own small plots within the garden. There is equal representation in terms of gender, but the committee is made up of five males

and two females. The councillor is an executive member of the committee and all decisions have to be endorsed by him.

4.3.3. The role of traditional and political leaders

Development practitioners use the ‘blue print approach’ in planning for projects in rural areas. In other words, they have prepared a comprehensive plan, with a detailed list of projects and programmes to be implemented over a specified time period (PlanAfric, 2000). However, PlanAfric (2000) voiced concern that the main problem with blueprint planning in the context of rural development is that it is never possible to predict accurately all the details of a project or programme, particularly in the case of projects which are initiated by and/or require a major input from local communities. Frequently, the plans do not necessarily work as previously envisaged.

Of significance to this study is that in all discussions, participants pointed out that those traditional leaders who are aligned to the ruling party have considerable influence in decision making. Councillors do not operate within clearly demarcated parameters. They are part of community activities at functions such as funerals, village meetings as well political meetings. No non-governmental organisation can operate in the community without obtaining clearance from the councillor or the chiefs. As a result, instead of having a direct link with communities and beneficiaries, projects planners have had to follow the existing hierarchy of leadership. As stated in Chapter 4, Mvuramanzi Trust also observed that they relied mostly on ward councillors and other government officials for mobilising the community members. Despite activities initiated by community members like those in the Kufuma Ishungu Garden Group, all projects had to be endorsed by the ward councillor, village head and traditional chief. Mr Mandebvu, a villager, complained that “every one of them wants to be felt; they want a piece of us”. This means the Danga Ecological Sanitation Project was no exception, and the Mvuramanzi Trust had to go through the leadership hierarchy before reaching the

community. As a consequence, community participation remains minimal and the top-down approach continues to dominate.

This implies that organisations can plan, but when they go to the community there are some unforeseen stumbling blocks that will force them to abandon their initial plan. Although their approach is based on SARAH, Mvuramanzi Trust had to go through the local traditional leadership and local councillors before being able to implement the project. This replicates the top-down approach in development.

.4.3.4.1 Participation in Ecosan Project

Participation refers to the total involvement of the beneficiaries in a developmental project (Chambers 2007; De Beer & Swanepoel, 1998; IIED, 2010; Rahman, 1993). As pointed out in the previous section, blueprint plans sometimes do not work as initially envisioned, hence failure of some projects.

It was difficult to locate project officers for the Mvuramanzi Trust since the project was stopped prematurely by the government. An interview was secured with an Africare employee who used to work as a project officer for the Danga Ecological Sanitation Project. He chose to remain anonymous and was assured that the interview recording would be used only for study purposes. The interviewee's role in the project was project management, so he had been part of the project from its inception until, eventually, its termination. Much of his information was reported in Chapter 4, but in addition, when asked how he thought the community participated in the project, he was quick to point that the community was involved at every stage. He said that the idea was introduced to government officials and council staff in the district, who gave permission for Africare to carry out the project. They went on to meet councillors and traditional leaders and outlined their intentions. Councillors and traditional leaders had the responsibility of informing community members and calling meetings. During the interview with councillors and traditional leaders, the researcher was

also told that any activity in the community had to be endorsed by them. As the guardians of culture and development, they completed the link between the state and people at grass roots level.

4.3.4.2. Implementation of sanitation projects

According to Waterkeyn and Cairncross (2005:1959), besides the promotion of PHAST as an approach in hygiene and sanitation projects, it has remained largely an interesting concept rather than an applied programme, and by 2001, the regional planners who had launched PHAST were losing interest. In addition, “after nearly a decade, the PHAST approach had failed to produce empirical evidence of behaviour change as few practical objectives and indicators of change had been adequately monitored to convince donors to continue support”. It seems that although the Mvuramanzi Trust indicated that they used the SARAH concept, based on PHAST, the level of participation in the projects remains debatable. Results of the current study showed that only a small number of respondents participated in the project, with none in the inception and very few in the planning stages. Interviews with ordinary community members showed that participation in projects was mainly determined by leadership in the community. They pointed out the fact that some councillors and chiefs had the power to stop someone from benefiting from such projects if he or she was out of favour with them.

4.3.4.3. Monitoring and Evaluation

Monitoring and evaluation is crucial at every stage of the project. The essence is to have the community take part in the process so that they may gain insight and learn. Cousins and Earl (1992) noted that participatory evaluation is presented as an extension of the stakeholder-based model, with focus on enhancing evaluation utilisation through primary users’ increased depth.

Although the project was brought to an end prematurely, constant monitoring of the project was done by the Trust's employees and its partners. None of the respondents indicated that they took part in the monitoring and evaluation of the project. Monitoring was done on a constant basis and the ward councillors usually accompanied the Trust representatives. Final evaluation of the project was done by the Trust, aiming to establish the impact of the whole project. They visited households and schools where the project had been carried out. The main concern of the researcher is that ordinary members of the community were not involved in the monitoring and evaluation of the project.

4.4 Concluding Remarks

The people-centered approach in development advocates for involvement of the community at every stage of the process (IIED 2010; Rahman 1993; Swanepoel & De Beer, 1997). Chapter 4 presented the findings of the study and these were divided into quantitative and qualitative.

Quantitative findings were based on 40 questionnaires distributed to households in the Danga community. Generally, respondents indicated that they were not involved in the conception of the project. Some of them indicated that they were involved in the planning and implementation of the project. Households also contributed labour for the project.

Qualitative results showed an in-depth analysis of the project as a whole. Focus group discussions, semi-structured interviews and observation revealed deep-rooted structural hierarchical decision-making processes. Decision making is gender biased and also politically oriented. Ordinary community members do not freely take part in developmental projects as sometimes political allegiance plays a huge role.

All in all, community participation in the Danga Ecological Sanitation Project was partial and selective. The project's lack of success can be explained by there being little or no community participation.



CHAPTER 5: CONCLUSION AND RECOMMENDATIONS

5.1. Introduction

Development, as indicated in the theoretical body of this study, is a very contentious term (De Beer & Swanepoel, 1998; Esman, 1991; Sachs, 1992; Schurman 1993; Sen, 1999). Post-developmentalists have dismissed *development* as a pernicious discourse, a grand modernising and colonial narrative reflecting and serving Eurocentric interests (Craig & Porter, 2006). However, it is generally accepted that development is a steady progress toward improvement of the human condition (Esman, 1991).

Growing interest in the discourse saw the emergence of theories trying to explain development. This study was focused on the so-called 'traditional' theories, that is; modernisation and dependence theories. Both these theories failed to explain underdevelopment, leading to the more popularised people-centred approach. Central to this theory is participatory approaches in community development.

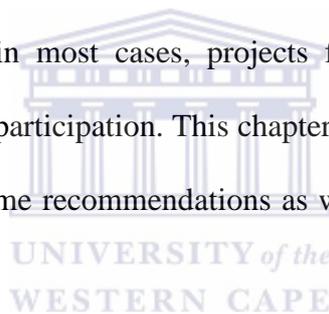
Sanitation is an important indicator of development in any given community. The first chapter of this study demonstrated that more than 2.5 billion people across the world remain without improved sanitation, and 50% of these are in sub-Saharan Africa (Millennium Development Goals Report, 2008). Zimbabwe is among the countries worst affected by poor sanitation; consequently, over 3000 people died of cholera in 2008. This has been attributed to the state's inability to provide basic services to its citizens.

Non-governmental organisations, such as the Mvuramanzi Trust, play a crucial role in providing sanitation in the rural communities of Zimbabwe. The development of new technologies in sanitation, such as ecological sanitation, has assisted greatly in addressing the needs of communities as well as maintaining safe environments. Furthermore, the authors of a range of literature have suggested that it is important for the community to participate in the

planning, implementation, monitoring and evaluation of projects. The study therefore was focused on the level and extent of community participation in Ecosan projects in the Danga community.

The findings of the study, both quantitative and qualitative, were presented, and a thematic approach was used in the discussions of the research. Generally, findings of this study have indicated that the community participated only partially in the Ecosan project. Respondents indicated that they were only involved in the implementation stage, where the project was introduced in workshops, as well as contributing labour in the construction of latrines. The findings also indicate that a top-down approach was followed in the implementation of the project.

Participation is defined as involvement of community members in development initiatives. This research has shown that, in most cases, projects fail to make positive changes in people's lives because of lack of participation. This chapter will provide the conclusion of the research findings and provide some recommendations as well as suggestions for some areas of further research.



5.2 Thematic Conclusions

5.2.1. Community participation in the ecological sanitation project

As pointed out by the researchers cited in the literature consulted on the topic, participation is one of the core principles of the people-centered approach in development. Swanepoel (1992:4) argued that participation is “a collective process by which neighbourhoods, villages, communities, and ultimately the nation state prepare themselves not only to adjust to change, but also to direct change”. The results of this research indicated that the community members who were supposed to benefit from the ecological sanitation project were not fully involved at every stage of the project. The majority of the respondents claimed that they were only involved at the implementation stage of the project. Not only does participation enhance

empowerment and ownership of the project but the beneficiaries go through an experience of positive change, where they learn from their mistakes and complete the cycle by implementing what they have learnt.

5.2.2. Community empowerment and ownership

Participation leads to empowerment in the sense that through participation people feel that they are in control of their future. For Swanepoel (1992), empowerment means the acquisition of power and the ability to be effective. Complementing this principle of empowerment is ownership. Development theorists generally agree that community development projects do not belong to initiating non-governmental organisations and government departments; they are just facilitators for the communities to run their own projects. In relation to the study, Mvuramanzi Trust introduced the project through partnering with the Ministry of Health and Child Welfare and other government representatives. The ward councillors and traditional leaders were left to mobilise the community. This represents a top-down approach in development, which is the opposite of the people-centred approach. Several community members felt that this project was another imposition from the authorities. Principles of empowerment and ownership of the project do not apply in a case like this; hence, the project could not be considered a success. The study results also show that few households actually use the toilets, and some went back to traditional Blair latrines after the Ecosan toilets were full, an indication that the community did not fully grasp the concept behind ecological sanitation. If the community was fully empowered, and felt that they owned the project, other issues like faecophobia could not have been labelled as contributing to lack of success in ecological sanitation projects.

5.3. Recommendations

Sanitation remains a major challenge to development in sub-Saharan Africa. Despite efforts such as collectively setting targets, as in the case of the Millennium Development Goals, very

few countries, if any, will meet the target set on sanitation. In addition, issues of sustainability remain crucial as recent studies show that conventional sanitation methods pollute the environment and they are too expensive to install and maintain. There is no doubt that ecological sanitation is pivotal in changing the landscape of future sanitation initiatives. In order for such projects to be successful, there is need for the following:

- Full involvement of target communities, that is, the community members should be involved from the inception of the project. Through awareness campaigns, the community will definitely recognise the benefits of ecological sanitation and adopt the technology as a sustainable, clean and cheap option. Careful planning for projects needs to be done with the community so that it fully understands what is taking place and will consequently take ownership. The ecological sanitation project could not have been brought to a halt if proper planning had been done together with the community.
- Political intervention in crucial community projects should be minimal and not retrogressive. The current political landscape in Zimbabwe does not create an appropriate atmosphere for community participation to take place. Some respondents indicated that they did not attend any village meetings because half of the time is spent chanting party slogans. In addition, several opposition members are often excluded in development projects. Furthermore, the influence of political figures in decision making does not fully support participation of ordinary community members.
- In most cases, community projects are carried out in isolation. For instance, when the ecological sanitation project was launched, some households received building material, such as cement. However, due to other pressing issues, like shortage of food and school fees, it was established that some households actually sold the cement before the actual construction of latrines took place. The researcher strongly feels that

before a project is implemented, partnership with other organisations working in the area should be established. This multidimensional approach helps in the sustenance of the projects. In addition, this co-ordinated approach results in a ‘total’ positive change in the community.

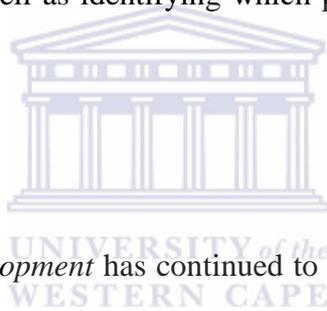
5.4. Areas for Further Research

Ecological sanitation is a plausible approach to sanitation, as this research has demonstrated. Further research is needed on the acceptability and social taboos related to human waste. Ways to overcome society’s fears of handling their own waste and to build regard for human waste as an important resource need to be explored.

Another interesting area of further research would be a comparative analysis of policies around water and sanitation as well as identifying which policy works best for sub-Saharan Africa.

5.5. Conclusion

Over the years, the concept *development* has continued to dominate literature. The paradigm shift from traditional understanding of development, as in the case of modernist and dependency theories, to the people-centred approach represents rising awareness that development is for the people, not only for the ‘experts’. This research has demonstrated that developmental projects are more effective if they are carried out with full involvement of community members.



REFERENCES

- AfDevInfo, 2006. Mvuramanzi Trust [Online]. Retrieved 12 December 2010 from http://www.afdevinfo.com/htmlreports/org/org_43408.html
- Andersson, I, Esrey, S, Sawyer, R & Hilliers, A 2001. *Closing the loop: Ecological sanitation for food security* Publications on Water Resources/SIDA; No 18. Stockholm: SIDA.
- Austin LM, Duncker LC, Matsebe GN, Phasha MC & Cloete TE 2005. *Ecological sanitation – Literature review*. Wrc Report No Tt 246/05. Pretoria: Water Research Commission.
- Avannavar, SM & Mani, M 2007. A conceptual model of people's approach to sanitation. *Science of the Total Environment* [Online] **390**: 1-12. Retrieved 15 June 2011 from www.sciencedirect.com.
- Ayres, R (ed.). 1995 *Reader in development studies*. Greenwich UK: Greenwich University Press.
- Babbie, ER 2007. *The practice of social research*. Belmont: Thomson Wadsworth.
- Babbie, E & Mouton, J 2001. *The practice of social research*. Oxford: Oxford University Press.
- Barret, JC 1991. *The economic role of cattle in communal farming systems in Zimbabwe*. Harare ZW: Zimbabwe Veterinary Research Laboratory.
- Beukman, R 2002. Access to water: Some for all or all for some? *Physics and Chemistry of the Earth* **27**: 721-722.
- Bryson, D 2011 Feb 3. Researchers criticize aids spending, *Associated Press* [Online]. Retrieved 14 June 2011 from <http://uhaweb.hartford.edu/bugl/updates/EA-February-2011.pdf>
- Callaghan, S 1997. Participative development: Adopting a holistic approach. *Planning*, **152**: 36-41.
- Chambers, R 2007. *Poverty research: Methodologies, mindsets and multidimensionality*. IDS WORKING PAPER 293; Institute of Development Studies (IDS), University of Sussex.
- Coetzee, JK, Graaff, J, Hendricks, F & Wood, G 2001. *Development: Theory, policy and practice*. Oxford UK: Oxford University Press.
- Cohen, R. & Kennedy, P. 2000. *Global sociology*. Basingstoke UK: Palgrave MacMillan.
- Cousins, J.B. & Earl, L.M., 1992. The case for participatory evaluation. *Educational Evaluation and Policy Analysis* [Online], **14**(4):397-418). Retrieved 26 June 2011 from <http://jstor.org/stable/1164283>

Davids, I, Theron, F, Maphunye, J & Kealeboga, J 2009. *Participatory development in South Africa: A development management perspective*. Pretoria: Van Schaik.

De Beer, F & Swanepoel, H 1998. *Community development and beyond: Issues, structure, and procedures*. Pretoria: Van Schaik.

Duncker, LC, Matsebe, GN & Austin, LM 2006. *Use and acceptance of Urine-Diversion Sanitation Systems in South Africa*. 2 (1439). Gezina ZA: Water Research Commission.

Duncker, LC, Matsebe, GN & Moilwa, N 2007. *The social/cultural acceptability of using human excreta (faeces and urine) for food production in rural settlements in South Africa*. Number TT310/07. Gezina ZA: Water Research Commission.

EcoSanRes, 2003. *Closing the loop on phosphorus*. Stockholm Environment Institute (SEI) [Online]. Retrieved 5 September 2010 from <http://www.ecosanres.org>

Esman, MJ 1991. *Management dimensions of development: Perspectives and strategies*. Bloomfield CT: Kumarian Press.

Esrey, SA, Gough, J, Rapaport, D, Sawyer, R, Simpson-Hébert, M, Vargas, J & Winblad, U 1998. *Ecological sanitation*. Stockholm: Swedish International Development Cooperation Agency.

Esrey, S, Andersson, I, Hillers, A & Sawyer, R 2001. *Closing the loop, Ecological sanitation for food security*. Swedish International Development Cooperation Agency. Publications on Water Resources No. 18. (1st ed.) Mexico. Retrieved 10 March, 2010 from <http://www.gwpforum.org/gwpef/wfmain.nsf/Publications>

Estralla, M, Blauert, J, Campilan, D, Gaventa, J, Gonsalves, J, Guijt, I, Johnson, O & Ricafort, R 2000. *Learning from change: Issues and experiences in participatory monitoring and evaluation*. London: Intermediate Technology.

FitzGibbon, JE 2000. An introduction to watershed and wetland ecosystems management in Eastern and Southern Africa. In: John E FitzGibbon (ed.) *Advances in planning and management of watersheds and wetlands in Eastern and Southern Africa*. Harare, Zimbabwe: Weaver Press.

Franceys, R & Gerlach, E (eds.) 2008. *Regulating water and sanitation for the poor-economic regulation for public and private partnerships*. London: Earthscan.

Frank, T. 1999. Capacity building and institutional development: Reflections on water. *Public Administration and Development*. 19: 51-56. [Online]. Retrieved 12 June 2011 from [http://onlinelibrary.wiley.com/doi/10.1002/\(SICI\)-1099-162X\(199902\)19:1<1.0.co;2-9/issuetoc](http://onlinelibrary.wiley.com/doi/10.1002/(SICI)-1099-162X(199902)19:1<1.0.co;2-9/issuetoc)

Freire, P 1993. *Pedagogy of the oppressed*. New York, NY: Continuum.

Graaff, J., 2003. *Introductions to sociology: Poverty and development*. Cape Town: Oxford University Press.

- Graaff, J & Venter, D 2001. Dependency theory, the world system, and systems thinking in development., In KJ Coetzee, , J Graaff, , F Hendricks, & G Wood, (eds.), *Development: Theory , Policy, and Practice* . Oxford UK: Oxford University Press.
- Green, G., 2007. *The Community Development Process* [Online]. Retrieved 10 April 2010 from http://www.sagepub.com/upm-data/15523_Chapter_3.pdf
- Giddens, A 2001. *Sociology* (4th edn.). Cambridge, UK: Polity.
- Guzha, E 2002. Ecological sanitation practice and technology development in southern Africa and Zimbabwean. Case Study [Online]. Retrieved 12 December 2010 from http://www.ecosanres.org/pdf_files/Nanning_PDFs/Eng/Guzha%2023_E34.pdf. Accessed
- Hoogvelt, A 1982. *Third world in global development*. London: Macmillan.
- Irwin, A 2001. *Sociology and the Environment*. Cambridge: Polity Press.
- International Institute for Environment and Development (IIED) 2010. *Deepening participation for social change: Case studies from Africa and Asia* [Online]. Retrieved 15 June 2011 from [http://pubs.iied.org/G02726.html?g=\(Africa\)&w=NR&b=t](http://pubs.iied.org/G02726.html?g=(Africa)&w=NR&b=t)
- Jackson, B 2005. *A review of Ecosan experience in Eastern and Southern Africa* (Field Note/WSP). Nairobi, Kenya; Water and Sanitation Program African Region.
- John, E & Fitz, G 1999. *Advances in planning and management of watersheds and wetlands in Eastern and Southern Africa*. Harare, Zimbabwe: Weaver Press.
- Jonker, L, Beukman, R, Nyabeze, W R, Kansime, F & Kgarebe, BV (eds.) 2002. Integrated water resources management, theory, practice, cases *Physics and Chemistry of the Earth: 27*: 11-22. Danvers MA: Elsevier Science.
- Khwaja, A (2004). Is increasing community participation always a good thing? *Journal of the European Economic Association* 2(2-3): 427-436.
- Kothari, CR 1990. *Research methodology: Methods and techniques* (2nd edn.). New Delhi: Vishwaprakashan.
- Kotze, DA & Kellerman, GEJ 1997. Participation and managerial approaches to development. In Kotze, DA(ed.), *Development administration and management: a holistic approach*. Pretoria: Van Schaik.
- Langergraber, G., & Muellegger, E 2005. Ecological sanitation--A way to solve global sanitation problems? *Environment International* 31:433-44.
- Mbereko, A 2010. *An Assessment of the Outcomes of "Fast Track" Land Reform Policy in Zimbabwe on Rural Livelihoods: The Case of Gudo Ward (Mazvihwa Communal Area) and Chirere area (AI Resettlement Area)*. University of Zimbabwe Lake Kariba Research Station
- Mbereko, A, Chimbari, MJ & Mukamuri, BB 2007. An Analysis of institutions associated with wetlands use, access and management in communal areas of Zimbabwe: A case study of

Zungwi Vlei, Zvishavane. *Physics and Chemistry of the Earth* [Online] **32**: 1291-1299. Retrieved 15 June 2011 from www.sciencedirect.com

Mbiba, B 2001. Communal land rights in Zimbabwe as State Sanction and Social Control: A Narrative. *Journal of the Integrated African Institute*, **71**(3), 426-448. Edinburgh. UK: Edinburgh University Press.

Mikkelsen, B. (1995). *Methods of development work and research*. Thousand Oaks, CA: Sage.

Mikkelsen, B 2005. *Methods for development work and research: A new guide for practitioners*. New Delhi: Sage.

Millennium Development Goals Report 2008 [Online] Retrieved 20 May 2010 from http://unstats.un.org/unsd/mdg/Resources/Static/Products/Progress2008/MDG_Report_2008_En.pdf

Moriarty, P., Butterworth, J., & van Koppen, B. (eds.), 2004. Beyond domestic. Case studies on poverty and productive uses of water at household level. Delft, The Netherlands. IRC International Water and Sanitation Centre (IRC Technical Paper Series; no. 41). In B van Koppen, P Moriarty & E Boelee 2006. *Multiple-use water services to advance the millennium development goals*. Research Report 98. Colombo, Sri Lanka: International Water Management Institute, 44p.

Morgan, P 2004. *An Ecological approach to sanitation in Africa: A compilation of experiences: The EcoSan Book*. Harare Zw: Aquamor.

Morgan P. 2007. *Toilets that make compost: Low-cost, sanitary toilets that produce valuable compost for crops in an African context*, Stockholm Environmental Institute, EcoSanRes Programme.

Mukheli, A., Mosupye, G., Swatuk, L.A 2002. Is the Pungwe water supply project a solution to water accessibility and sanitation problems for the households of Sakubva, Zimbabwe? *Physics and Chemistry of the Earth* **27**, 723–732.

Musara, C 2000. Ecosan – Closing the loop in wastewater management and sanitation. *Ecological Sanitation Proceedings of the International Symposium*, 30–31 October 2000, Bonn, Germany.

Mutema, M 2003. Land Rights and Their Impacts on Agricultural Efficiency, Investments and Land Markets in Zimbabwe. *International Food and Agribusiness Management Review* [Online] **6**(2), 13-56. Retrieved 23 October 2010 from <http://ageconsearch.umn.edu/bitstream/34255/1/0602mu01.pdf>

Mvuramanzi Trust 1997. *Mvuramanzi Trust annual report 1996*. Harare ZW: Mvuramanzi Trust.

National Geographic Society 2005. What is Human Migration? Human Migration Guide (3-5) [Online]. Retrieved 15 June 2011 from <http://www.nationalgeographic.com/xpeditions/lessons/09/g35/migrationguidestudent.pdf>. ed

Petrowitsch, M. B. & Arroyo, F 2004. Ecological Sanitation and Urban Agriculture Tepozeco Project, México [Online]. Retrieved 15 September 2010 from <http://www.ramiran.net/doc04/Proceedings%2004/Petrowitsch.pdf>. Accessed.10Am.

Phimister, I & Raftopoulos, B 2007. Desperate days in Zimbabwe. *Review of African Political Economy* [Online] **34**(113): pp. 573-580, Imperial, Neo-Liberal Africa? Taylor&Francis,Ltd. Retrieved 26 June 2011 from <http://www.jstor.org/stable/20406433>

PlanAfric 2000. *Local Strategic Planning and Sustainable Rural Livelihoods Rural District Planning in Zimbabwe: A Case Study Report to the UK Department for International development*, Bulawayo: Famona.

Raftopoulos, B & Mlambo, A(eds.) 2009.*Becoming Zimbabwe: A history form the pre-colonial period to 2008*.Harare: Weaver Press.

Rahman, AMD 1993. *People's self development: perspectives on participatory action research : A journey through experience*. London: Zed Books.

Roodt, M 2001. Participation, civil society and development. In KJ Coetzee, J Graaff, F Hendricks & G Wood (eds.), *Development: Theory , policy, and practice* . Oxford: Oxford University Press.

Rudestam, KE & Newton, RR 1992. *Surviving your dissertation: A comprehensive guide to content and process*. California: Sage.

Runde Rural District Council 2009. Shavahuru Ward Profile, Zvishavane District. (Unpublished).

Runde Rural District Council: 2010. Village Profile, Zvishavane District. (Unpublished)

Sanitation Communiqué 2008. [Online].Retrieved15 October 2010 from <http://www.wsscc.org/resources/resource-country-materials/zimbabwe-sanitation-communiqu%C3%A9-2008?rck=5ed56d6ede94687cd39456c22ecde258>.

Schuurman, F 1993. 'Modernity, post-modernity and the new social movements', In F Schuurman (ed.) *Beyond the Impasse: New Directions in Development Theory*, pp.187-206. London: Zed Books.

Sachs, W 1992. *The development dictionary: A guide to knowledge as power*, London: Zed Books.

Sen, A 1999. *Development as freedom*. New York: Knopf

Shapiro, J 2001.*Civicus overview: Monitoring and evaluation*. [Online]. Retrieved 14 August 2010 from <http://www.civicus.org/new/media/Monitoring%20and%20Evaluation.pdf>

Simpson-Hébert, M & Wood, S 1998. *Sanitation Promotion*. WSSCC Working Group on Promotion of Sanitation. Geneva: WHO.

Silverman, D 2010. *Doing qualitative research: A practical handbook*. Los Angeles: Sage.

Srinivasan, L 1990. *Tools for community participation: A manual for training trainers in participatory techniques*. Washington, DC: Prowess/UNDP-World Bank Water and Sanitation Program.

Stiglitz, J 2002. Participation and development: Perspectives from the comprehensive development paradigm. *Review of Development Economics*. 6(2) 163-182 [Online]. Retrieved 12 June 2011 from [http://onlinelibrary.wiley.com/doi/10.1002/\(SICI\)-1099-62X\(199902\)19:1<1.0.co;2-9/issuetoc](http://onlinelibrary.wiley.com/doi/10.1002/(SICI)-1099-62X(199902)19:1<1.0.co;2-9/issuetoc)

Swanepoel, H 1992. *Community development: Putting plans into action*. Cape Town: Juta.

Swanepoel, H & De Beer, F 1997. *Introduction to development studies*. Johannesburg: Thomson.

Swanepoel, H. & De Beer, F 2006. *Community development*. Cape Town: Juta.

Theron, F 2009. 'Development Management in Practice'. In I Davids, F Theron & KJ Maphunye (2nd edn.). *Participatory development in South Africa: A development management perspective*. Pretoria: Van Schaik.

Todaro, M. P. (1994). *Economic Development* (5th edn.). New York, London: Longman.

Turok, B. (2007). *The Development state and monopoly power*. [Online]. Retrieved 27 September 2010 from <http://www.anc.org.za/show.php?doc=ancdocs/pubs/umrabulo/umrabulo30/art4.html>

United Nations 2009. *Zimbabwe: Mid-Year Review/Revision: May 2009 Consolidated Appeal*. [Online] Retrieved 15 June 2011 from [http://ochadms.unog.ch/quickplace/cap/main.nsf/h_Index/Revision_2009_Zimbabwe/\\$FILE/Revision_2009_Zimbabwe_SCREEN.pdf?OpenElement](http://ochadms.unog.ch/quickplace/cap/main.nsf/h_Index/Revision_2009_Zimbabwe/$FILE/Revision_2009_Zimbabwe_SCREEN.pdf?OpenElement)

United Nations Children's Fund (UNICEF). (2009). Zimbabwe. [Online]. Retrieved 12 April 2010 from http://ocha.unog.ch/CAPprojectsPDF/Reports/projectsheets/CAPProjectSheet_841_24587_2010624.pdf

United Nations Children's Fund (UNICEF). (2008): *Zimbabwe statistics*. [Online] Available http://www.unicef.org/infobycountry/zimbabwe_statistics.html

United Nations Educational, Scientific and Cultural Organisation (UNESCO). 2006. *Capacity building for ecological sanitation*. UNESCO International Hydrological Programme and Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ) GmbH. Paris, France.

Warburton, D 1998. *Community and sustainable development*. London: Earthscan.

Waterkeyn, J. & Cairncross, S 2005. Creating demand for sanitation and hygiene through community health clubs: A cost-effective intervention in two districts of Zimbabwe. *Social Science & Medicine* [Online], 61: 1958-1970. Retrieved 20 May 2011 from <http://www.africaahead.org/creating-demand-for-sanitation-and-hygiene-through-community-health-clubs/17/02/2008/>

Webster, A. (1984). *Introduction to the sociology of development*. Basingstoke: Macmillan.

Winblad, U & Simpson-Hébert, H (eds.) (2004). *Ecological sanitation – Revised and enlarged edition*. Stockholm, Sweden: SEI.

Williams, PT 1998. *Waste treatment and disposal*. Chichester: John Wiley & Sons.

Wood, S, Sawyer, R, Simpson-Hébert, M 1998. *PHAST step-by-step guide: A participatory approach for the control of diarrhoeal disease*. Geneva: World Health Organisation (unpublished documents WHO/EOS/98.3).

Zimbabwe Constitution 2005. *Constitution of Zimbabwe* [Online]. Retrieved 15 June 2010 from www.parlzim.gov.zw/cms/.../ZimbabweConstitution.pdf

Zvishavane District 2010. *Data sheet for District Wash Inventory*. Zvishavane District (Unpublished).



ANNEXURES

Annexure 1: Questionnaire for the Danga Ecological Sanitation Project

Instructions:

1. If you are a member of the Danga Community, please complete the following questionnaire.
2. These questions should only be answered in the context of the Ecological Sanitation Project carried out in Danga.

SECTION A: DEMOGRAPHIC CHARACTERISTICS

Please tell us about yourself

1. Age:
2. Gender: Male Female
3. Marital status: Married Single Widowed Other
Specify.....
4. State your village name:.....
5. Please indicate the household head:

Household Head	Answer
Child	
Mother	
Father	
Both Parents	
Other	

6. Indicate the number of dependents (Please tick the box provided)

Number of Dependents	Answer
None	
0-3	
3-6	
6 or more	

SECTION B: SOCIAL CHARACTERISTICS

7. Indicate the highest level of education attained

LEVEL OF EDUCATION	ANSWER
Never went to school	
Primary school	
Secondary School (Form 1-4)	
Secondary School(Advanced Level)	
Tertiary Education (Teacher's college; Technical College; Vocational Training College or University)	

8. Do you belong to any community organisation? Yes No

If yes, please tick the appropriate box

NAME OF COMMUNITY ORGANISATION	ANSWER
Church	
Burial society	
Political party	
Community garden project	
Other (please specify).....	

9. Are you satisfied with the level of health service in your community?



Please motivate your choice.....

SECTION C: ECONOMIC CHARACTERISTICS

10. Are you employed? Yes No

11. Please indicate the category of employment on the table below:

CATEGORY	ANSWER
Informal	
Formal	
Contract worker	
Seasonal worker	
Other (please specify)	

12. What is your monthly income? Please indicate below.

MONTHLY INCOME (US\$)	ANSWER
Below \$50	
\$50-100	
\$100-500	
\$500-1000	
\$1000+	

13. Please indicate the total household income (i.e. income generated by other members of the family and used to pay for expenses).

MONTHLY INCOME (US\$)	ANSWER
Below \$50	
\$50-\$100	
\$100-\$500	

\$500-\$1000	
\$1000+	

SECTION D: LIVELIHOODS

14. Do you own land?

Yes No

If yes, please indicate the size of your land.

Land Size	Answer
Below 5 Acres	
5-10 Acres	
10-20 Acres	
20- 40Acres	
Above 40 Acres	

15. Please indicate your ownership of livestock

Livestock Type

Number

Livestock	none	Below 3	4-6	7-9	10 and above
Cattle					
Goats					
Sheep					
Donkeys					
Pigs					
Fowls					
Other (Specify)					

16. What do you use as fertiliser for your crops?

Organic Fertiliser Inorganic Fertiliser

SECTION E: COMMUNITY PARTICIPATION

17. Do you know the name of your ward councillor?

Yes No

18. Do you know the function of the ward councillor?

Yes No

Please motivate:

.....

19. Do you know any traditional leaders in your community?

Yes No

20. Do you think the traditional leadership is effective in your community?

Yes No

Please motivate your answer

.....

.....

21. Indicate your level of satisfaction with your local councillor by selecting the appropriate box below.



22. Indicate your level of satisfaction with your local councillor by selecting the appropriate box below.



23. Please list the different types of participation structures in your community (e.g. community meetings, meetings with government officials, community organisation meetings).....

.....

24. How regularly are community meetings held?

NUMBER OF TIMES	ANSWER
Daily	

Weekly	
Monthly	
Other (Please specify)	

25. How often do you attend community meetings?

Never Rarely Most of the time Every time

Please motivate

.....

SECTION F: SANITATION

26. State the type of sanitation used by your household for human waste disposal.

Type of sanitation	Answer
Blair pit latrine	
Ecosan unit	
Improved Ventilated latrine	
Other (please specify)	

27. Have you ever used an Ecosan latrine?

Yes No

28. If yes, what in your view is are the benefits of this type of latrine?.....

.....

29. If you do not currently use an Ecosan latrine, would you do so in the future?

Yes No

Please motivate.....

30. What in your view are the challenges that are faced in the use of Ecosan latrines?

.....
.....
.....

SECTION G: PARTICIPATION IN DANGA ECOLOGICAL SANITATION PROJECTS

31. Have you ever participated/ taken part in sanitation projects?

Yes No

If your answer is yes above please proceed to answer number 30.

32. Please describe your level of participation by marking in the relevant box below

Fully participated (<i>took part from the inception of the project up to the last stage</i>)	
Partially participated	
Never participated	
Not sure	



33. Please indicate at which stage you were involved in the sanitation project

LEVEL/STAGE OF THE PROJECT	ANSWER
Conception	
Planning	
Implementation	
Monitoring and evaluation	

34. Please indicate your role or responsibility, if you took part in the sanitation project.

.....
.....

.....
.....
38. What are your recommendations for more effective community participation structures or mechanisms (such as community meetings, ward meetings etc).....
.....
.....

Thank you for participating in this survey



Annexure 2: List of Informants

S.no	Name	Sex	Age	Location	Responsibility
1	Mutare Vimba	M	36	Danga	Chairperson of Youth-In-School and Out-of-School Organisation
2	Nyaya Peter	M	51	Danga	Ward Councillor for Shavahuru
3	Mkonto Abraham	M	69	Mapanzure	Ward Councillor for Mapirimira
4	Nyoni Rufaro	M	53	Zvishavane	Former Councillor for Shavahuru ward/Deputy Headmaster
5	Chamuka Albert	M	56	Danga	Headmaster for Wasima Secondary School
6	Sibanda Tarisai	F	37	Mabasa	Acting Headmistress of Mabasa Government Secondary School
7	Siziba Roger	M	50	Danga	Headmaster of Danga Primary School
8	Rumhasa Jeff	M	48	Danga	Acting Headmaster of Bera Secondary school
9	Chamhere Josphat	M	78	Danga	Village Headman
10	Muchegwa Onias	M	54	Danga	Village Headman for Muchegwa Village
11	Danga Mutetererwa	M	70	Danga	Headman
12	Murenjekwa Victor	M	31	Zvishavane	Council representative
13	Moyo David	M	51	Zvishavane	Runde Rural District Council

					Representative
14	Nyungu Mtukwa	M	33	Mberengwa	Africare organisation
15	Nyoni Chifamba	M	82	Masunda	Traditional Chief
16	Mrs Nhakwi	F	43	Danga	Kufuma Ishungu member
17	Mutangi Berina	M	48	Danga	Political activist
18	Munyoro Ronald	M	39	Mapanzure	Political leader
19	Sibanda Julius	M	24	Mapanzure	Agriculture Extension Officer
20	Muchegwa Athony	M	28	Danga	Environmental Health Technician
21	Madzibaba Thomas	M	25	Danga	Religious group
22	Mutare Janet	F	61	Danga	Religious group
23	Mazibuko Mfandaedza	F	53	Danga	Religious group
24	Hove Achievement	M	51	Mabasa	Ministry of Health and Child Welfare
25	Sister Malinga	F	50	Mabasa	Nurse at Mabasa Clinic
28	Mutare Peter	M	30	Danga	Community representative
29	Manyura Tongai	M	28	Danga	Community representative
30	Sibanda Tracy	F	18	Danga	Community representative
34	Kadzonga Mavis	F	32	Danga	Community Health worker
35	Chimutanda Fadzai	F	40	Danga	Traditional Healer
36	Zororai Tamuka	M	40	Gubre	Community representative
37	Mutare Japhta	M	63	Danga	Local business owner

Annexure 3: Semi-structured Interviews:

List of Questions

1. Where are you currently staying?
2. How many people are staying with you?
3. Are you a member of any organisation?
4. Do you know any local leaders?
5. In your view, what is the purpose of these leaders?
6. Do you think these leaders are effective in your community?
7. Are ordinary members of the community allowed to take part in development projects;
Why?
8. Did you take part in the Danga Ecological Sanitation Project? If “Yes”, what was your
role?
9. Do you think the community members were fully involved in the process?
10. Have you taken part in monitoring and evaluation exercises?
11. How do you evaluate the benefits of the project to you and for the community?
12. How do you judge the level of performance in initiating and implementing activities, and
meeting set objectives?
13. What are some of the strategies which can be used to improve community participation?
14. Do you think it is safe to handle human waste for agricultural purposes?
15. Who do you think does the cleaning of latrines, males or females, and why?



16. What is the role of the government in community development?

