

An assessment of the role of community partnerships in addressing environmental problems in KwaMashu Township, Durban

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Abstract

Partnerships are a recognized tool for addressing local level environmental problems. They involve knowledge-sharing and decision-making by both local authorities and communities. Two different partnerships developed in Durban's KwaMashu Township with a view to addressing environmental problems associated with a degraded small stream viz, the KwaMashu Development Association (KDA) and the KwaMashu Development Initiative (KDI). This thesis describes a study carried out on these two partnerships, comparing their efficacy in resolving the problems and the factors that contributed to the pollution of the stream. Specific environmental circumstances conducive to the degradation of the stream, as well as measures put in place to address them, were identified during a field survey. Semi-structured questionnaires were then used to interview members of the two partnerships to obtain information on how they developed and functioned as a unit. Information was also obtained from respective individuals, regarding their perception of the factors that contributed to the stream degradation and the effectiveness of their rehabilitation efforts. Although the study found both partnerships to be of the leverage type, there were significant differences between the socio-economic profile and political affiliations of members. The KDA partnership received funding for the project whereas the KDI received no funding, but had a vision. The Keep Durban Beautiful Association created an awareness relating to waste and open space management which was imparted to the KDI members and this enabled them to achieve the goals of the project. These different baselines clearly contributed to the differences in the effectiveness of the partnerships.

Preface

I declare that the work submitted in this thesis is my own, except where specifically indicated in the text, that all sources have been acknowledged and referenced in the text, and that this work has not previously been submitted either in whole or as part of any other University for degree purposes.

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CHAPTER 1

INTRODUCTION

1.1 Motivation for the study

The cities and towns in South Africa are faced with a number of environmental problems, which include increasing waste volumes, pollution and environmental degradation. These problems have become particularly serious in the urban environment where there is little or no consideration for the environmental implications. The institutional frameworks required to address these issues are not in place. As a result, environmental hazards have contributed to the decline in water quality, they have disturbed the hydrological cycle, they have damaged the ecosystem, and generally pose a threat to human health (Hardoy *et al.* 1992). In developing countries, urban expansion is believed to be stressing the environment with few or no effective pollution control measures being exercised (Hardoy *et al.* 1992). Urbanization affects stream channels (through the pipes and channels of water collection) and floodplains, often causing water to flow through residential areas in high volumes. This leads to increased erosion and sedimentation.

The problems experienced by South Africa have mainly arisen as a result of urbanization, population and technological factors. Rapid urbanization and the migration of rural people into the cities resulted in the development of segregated townships. Overcrowding in townships has increased pressures on the natural resources (Manickam 1999). Townships are fundamentally African residential areas located at the edges of the cities and towns. They are characterized by a number of environmental problems. Townships face environmental deterioration because of lack of proper maintenance, neglect of essential activities, and lack of environmental awareness. A poor understanding of natural processes and limited contact with natural environments in the past, meant that people did not appreciate the importance of natural resources. This problem was compounded by the fact that communities were deprived of the right to participate in environmental decision-making. There has thus been a realization that, regarding problems of sustainable development, existing government and decision-

making bodies did not provide appropriate vehicles for dealing with the issues of concern (Oelofse and Scott 1998).

Most of the townships are characterized by high population densities in environments which are not conducive to a positive quality of life. Under apartheid, Africans were disenfranchised and marginalized and had very limited opportunities for making decisions about anything that would enhance the quality of their lives. Communities in the townships were among those that did not have institutions and structures for environmental information. With the new dispensation, communities have to understand their environments and manage them for future generations. In order for such an approach to be successful, a well-informed and educated community, which is committed to its quality of life, is a prerequisite.

Since 1994, there has been a systematic and gradual transformation of institutional structures and related legislation in South Africa (Scott 2000). This drastic change places more responsibility on communities to be involved in their environmental problems and decision-making, through representation or direct participation. The South African Constitution acknowledges that all citizens are entitled to a healthy environment whilst the National Environmental Management Act (Republic of South Africa 1996), endorses the principles of sustainable development. It provides many stakeholders the opportunity, at both the national and local level, to decide and implement sustainable programmes (Manickam 1999).

Within this framework, the eThekweni Municipality has recognized a need to plan for sustainable development by adopting the principles of Agenda 21, as formulated at the Rio Summit of 1992. Agenda 21 requires that its principles be implemented at a local level in terms of its subcategory Local Agenda 21. Local Agenda 21 (LA 21) is a worldwide programme and approach to planning and community development. The LA hopes to ensure economic, social, and ecological sustainability of previously disadvantaged communities through partnerships (CSIR 1999). The eThekweni Municipality has adopted a structure that enables interaction between government and

communities which should lead to the development of sustainable practices to meet social and economic needs and which will contribute to the quality of life of residents.

There has been a general shift in South African legislation focusing on pollution prevention and management of the environment in a sustainable manner. Sustainable development is concerned with improving the life of humans through people-centered initiatives, with the goal of maintaining and managing the natural life-supporting systems (Ghai and Vivian 1992). As an approach aiming to ensure the well-being of future generations, it encourages providing opportunities to all stakeholders for meaningful participation through the development of partnerships at local level. Furthermore, the sustainable development path calls for new ways of understanding the environment and new ways of approaching problems (Manickam 1999). With the emergence of Local Agenda 21, it has been realized that there is a need to integrate the urban townships and cities. The agenda also highlights the importance of involving the communities in managing and resolving the environmental problems of the townships.

To achieve sustainable development in the urban townships, individuals would be required to understand the principles of balancing present needs against those of the future. Sustainable development encourages the community to manage their environment for their well-being. The principles include increasing the participation of stakeholders, thereby providing the opportunity of resolving value differences, and implementing solutions (Long and Arnold 1995). This can be achieved through entering into partnerships to enable the community to acquire resources from different bodies or institutions which would allow them to implement the local project. Partnerships have recently become a key approach and an important element in effective sustainable development at a local level for a number of reasons. Firstly, there is a need to enable communities to improve their capacity and quality of life through managing and protecting their environment. Secondly, environmental challenges are becoming more complex as they are based entirely on regulatory control. Lastly, the regulators are faced with the challenge of assisting the communities to change their perceptions towards the concept of sustainable development. The only way to deal with the above difficulties, as Murdock and Sexton (1999) assert, is through the involvement of the

communities in decision-making, by enlisting their co-operation, and participation through entities called “partnerships”.

There is an increasing interest in the idea of forming partnerships between communities, businesses (as donors), non-governmental organizations (NGOs) and local governments, to deal with local resource issues for sustainability. Partnerships have their origin in the concept of Agenda 21 (which seeks to achieve sustainable development at a local level) and they are advanced as a collaborative approach to increase effectiveness, efficiency and sustainable development at this level. Although environmental partnerships are being supported by many as an effective approach to deal with local issues, there are those who still question them (Tredeau 2000).

Two different partnerships were developed in KwaMashu to address the environmental problems associated with a small degraded stream (labelled as perennial rivers in Figure 1). In an attempt to determine the extent to which partnerships have successfully altered community perceptions of the environment, this study examines the effectiveness of the partnership approach towards rehabilitating the stream. In order to bring people together to manage soil and water resources in a way that is socially, economically and environmentally sound, it makes sense to use a stream catchment as a management unit.

Resolving problems facing the urban streams requires both the participation of the local community and the local authorities. The decision about the environmental improvement and management is based on the availability of relevant knowledge. There is a need to find sustainable resource techniques at a local level within the local community, for effective future development. In this study, the challenges of sustainable development will be seen to lie in human involvement and interaction with the natural environment. Usually, the sources of pollution are in areas where humans dwell, work, and release organic and mineral wastes into the environment. Owing to human activities, people nearby the stream experience an impact on the environment and their quality of life is affected. This calls for a need to change the perception of the environment and towards conservation.

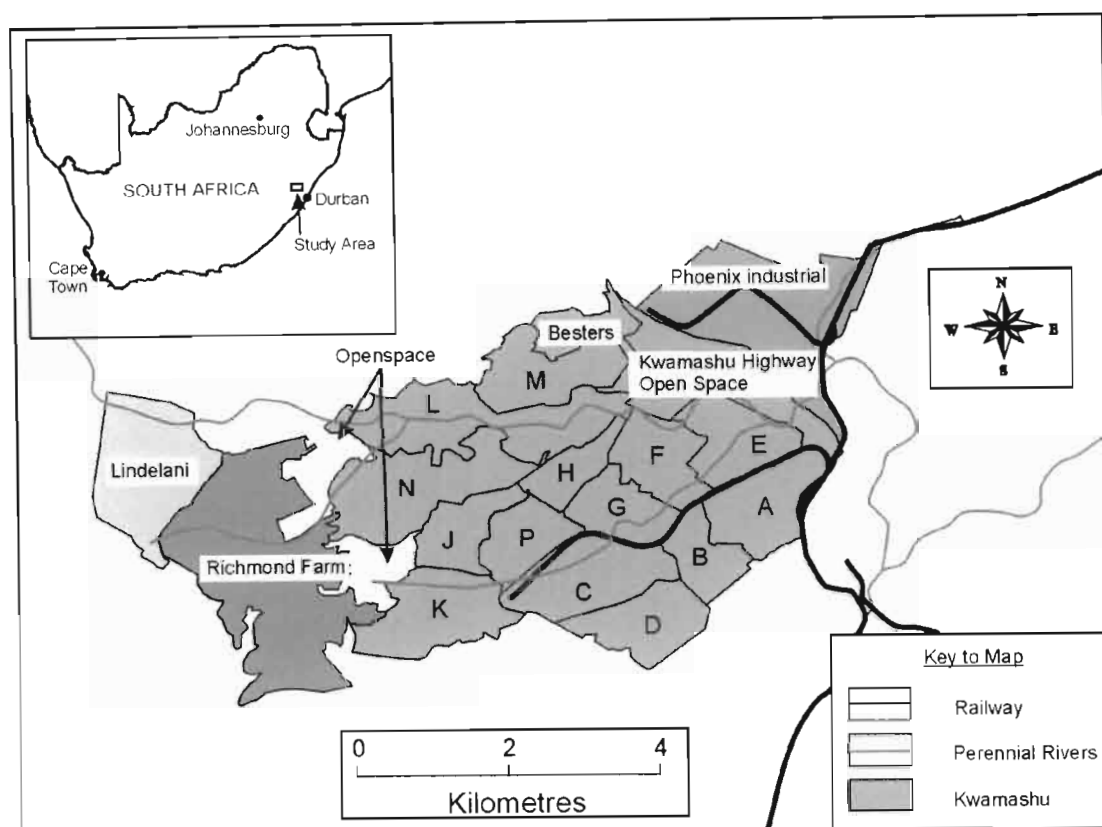


Figure 1. Map of KwaMashu area
(SA Explorer 2002)

1.2 Motivation for study area

There is clear link between the political history in South Africa and the social and natural environment. Apartheid policies restricted the majority of the community, by denying political rights and excluding many from environmental decision-making. The rapid urbanization and the migration of rural people into the cities resulted in the development of segregated townships. Overcrowding in townships has increased pressures on the natural resources (Manickam 1999). This has led to household overcrowding and uncontrolled informal settlements which alter water processes, and negatively impact on the vegetation and soil. KwaMashu is one of the areas which was affected by these historical policies and it is characterized by a number of environmental problems due to a lack of awareness and inadequate management.

Most townships are characterized by high population densities in the environments which are not conducive to a positive quality of life. Under apartheid, Africans in these communities had very limited opportunities of participating in decision-making in

anything that would affect the quality of their lives. Poor urban planning policies and strategies in South Africa have also led to changes in the physical environment (Makhathini 1999). KwaMashu township is one of the areas where the level of environmental problems is high and community involvement in environmental partnerships is still very low. The main problem in KwaMashu is that there are houses located within 100 m of the degraded stream and they are consequently at risk of being flooded as well as being exposed to health hazards. Floods are a reality, but assessing their potential impact depends on whether they are beneficial to the area or a risk to those residing nearby. From a socio-economic point of view, flooding may be beneficial if water provides natural irrigation, a habitat for fish and soil fertility. In contrast, it may be detrimental if residential property is damaged or destroyed (Gordon *et al.* 1992).

In the case of townships, it was determined that the problem of flooding is as a result of activities by the community which has a negative influence on the stream and open spaces. In addition to this, Brookes (1998) notes that channel modification have more of a direct impact on the stream. This process is usually carried out to improve drainage or flooding carrying capacity (Gordon *et al.* 1992). The structural diversity of streams is reduced through the elimination of meanders and the removal of snags and riparian vegetation. The stream in KwaMashu was channelised about fifteen years ago and currently the culvert has been rebuilt upstream (Zulu Road bridge). This culvert is smooth and straight and it fails to control the problem of sedimentation. This becomes a major risk to the communities downstream as a result of the threat of flooding and other health related problems. With regard to the KwaMashu stream, the reeds that grows along its banks cause massive flooding and devastating losses to wildlife habitats. These reeds, owing to sedimentation and soil erosion, encroach the water flow area serve to obstruct flow causing it to dam up and ultimately spill over the adjacent channel banks. Because the reeds form dense stands, this encourages crime in the area. An aggravating factor is that streams and open spaces are used as dumping areas, a general practice in most of the townships and informal settlements. This affects the drainage of the stream and as a result flooding occurs.

The eThekweni Municipality has responded to the need to achieve more sustainable urban environments by using the LA 21 mandate to develop city specific programmes (Manickam 1999) and has encouraged partnerships between local governments and communities. Durban is one of the first cities to adopt and implement the LA 21 plan. The LA 21 plan is aimed at facilitating the development of urban areas by means of providing the local authority with guidelines for addressing local community problems. Participatory processes for solving environmental problems will become particularly important as local problems are replaced by challenges that require international coordination.

The study area has been selected because there has already been a level of participation in addressing the problems of the degraded stream (focusing on the part of the stream which runs from K to C section, Refer Figure 1). This initiative emerged through the effort of community organizations namely, the KwaMashu Development Initiatives (KDI) and the KwaMashu Development Association (KDA), to promote partnerships between local residents, businesses, local authorities and non-governmental organizations, in order to introduce sustainable living in KwaMashu. These community groups hoped to empower the community, allowing them to make informed decisions. They have been involved in activities ranging from street and stream cleaning, to small-scale agricultural activities and parks rehabilitation. This form of participation has been a crucial element in partnerships that have been developed and they reflect the changes that have recently occurred in South Africa. With the local government's role in development diminishing, local communities are expected to play a more crucial role than their capacity allows.

It is anticipated that this study will contribute to a better understanding of environmental issues by the community, while at the same time assisting the local authorities in devising improved approaches in dealing with community concerns. With this in mind, several models of partnerships and factors associated with sustainability are explored, to attain an understanding of the partnerships developed by the community. Community-based organizations in KwaMashu have played a meaningful role in the development of these partnerships. The study focuses on the ability to promote participation at a local

level. It also focuses on the difficulties that these organizations encounter in trying to encourage partnership participation. Problems are intensified by a range of capacity constraints, including non-existence and withdrawal of funding, a lack of adequate environmental awareness and inadequate training of members in the participatory process.

1.3 Aim

The aim of the study is to identify factors influencing the efficacy of the two partnerships formulated to rehabilitate the stream in Durban's KwaMashu Township. To achieve this aim the following objectives were taken into account.

1.4 Objectives

The objectives of the study may be outlined as follows:

- determining the perception of members of the partnership relating to the nature, status and cause of the environmental problems associated with the stream
- comparing the origin, composition and modus operandi of the partnerships, specifically with regard to empowering the community with skills to:
 - ⇒ solicit the active participation of a representative as well as a significant proportion of the community
 - ⇒ improve environmental knowledge
 - ⇒ participate in decision-making, especially regarding disposal of funding
 - ⇒ implement technically appropriate measures to address causes of stream degradation
 - ⇒ solicit future funding
- identifying factors which obstruct the efficiency of the partnerships
- identifying factors which promote the efficiency of the partnerships.

1.5 Structure of the thesis

The need for continued transformation of environmental management in South Africa is imperative and indispensable. The focus has to be on continual participation and stimulation of communities to ensure sustainable development. This thesis is organized into six chapters. Chapter one provides the motivation for the study, the motivation for

the choice of study area, and the aim and objectives of the study. It also introduces the need for environmental partnerships and community participation in local projects. The intention of this chapter is to introduce the concept of partnerships and its connection with sustainable development.

Chapter two is a literature review. It discusses the following key concepts, namely sustainable development, participation as a vehicle to sustainability, and capacity building and partnerships. The principles of sustainable development and the guidelines for implementing partnerships at a local level, as prescribed at the 2002 World Summit, are described. The chapter explores more thoroughly the underpinnings of partnership concepts, focusing on various models. It focuses on the rise of community-based organizations as the principal development delivery mechanisms at a local level. The chapter also presents the models of environmental partnerships as envisaged by Long and Arnold (1995).

Chapter three discusses the background of the study area. The study area falls within C and K-sections of Ward 41 in KwaMashu (Refer Figure 1). The two sections were selected because they are associated with the partnerships developed, with section C associated with KDI and section K associated with KDA. An overview of community structures that exist in KwaMashu, concentrating on those that entered into the partnerships, and a brief account of the organizational history and a description of the projects is included. The chapter also provides the historical background of the study area, focusing on the political and criminal aspects as well as giving a brief overview of the biophysical environments of the study area.

Chapter four reviews the methodology employed in conducting the research. The methodology adopted in the preparation of questionnaires and interviews is discussed. The theory, which guided the choice of methodology, is explored. Environmental problems were identified through conversations with key informants, observations and interviews. The data was collected using a self-administered questionnaire that was translated into Zulu. To analyse these two partnerships, the Long and Arnold (1995) models of partnerships were used as a guide. As there is very little information that

exists about the environmental changes in KwaMashu, the research project will contribute to the data available about the area.

Chapter five provides a detailed analysis and discussion of findings relating to the two partnerships based on the partnership models mentioned above. The study reveals that both partnerships have succeeded in rehabilitating the stream and are of a leverage type, with the KDI being more successful than the KDA (reasons discussed in detail in chapter five). There were also significant differences between the two partnerships, in terms of socio-economic profiles and political affiliations and these contributed to the success or otherwise of the projects.

Insights arrived at from the work undertaken are recorded, and recommendations for improvements in future partnerships are made. It was concluded that partnerships are capable of working in the townships but assistance is required in the form of either environmental awareness and training, or funding, for these partnerships to be effective. It was recommended that the eThekweni Municipality should take a leading role in ensuring the effectiveness of partnerships in the townships through the provision of financial assistance and through the implementation of training courses.

CHAPTER 2

THEORETICAL FRAMEWORK

2.1 Introduction

This chapter provides a review of relevant literature in order to offer a conceptual framework for the comparative assessment of the efficiency of the two partnerships developed in Durban's KwaMashu township to address the environmental problems of the degraded stream. The chapter commences with an overview of changing environmental perceptions in a global context and explores the role of these in shaping the actions and decisions of communities.

The focus of LA 21 with its underlying theory of sustainable development and participation as a tool for achieving progress at a local level is examined. A description of the different types of partnerships and of prerequisites for their effective implementation and sustainability follows. Finally, relevant policies and legislation are examined to assess their potentially enabling role in establishing local partnerships to manage water resources.

The theoretical framework informs the research process. It is aimed at providing the basis for new ways of looking at things. It supports the practical knowledge that makes sense of our actions. It is able to provide access to unexpected questions and methods for changing situations from within. Theoretical frameworks are ways of interpreting and looking at the social world. Neuman (1997) describes social theory as a system of knowledge about the social world. It gives us concepts, provides basic assumptions and suggests how to make sense of data.

This chapter presents the theoretical perspectives that have influenced the development of environmental partnerships by the local community and in particular those developed by the previously marginalized communities. In this research, the extent of activity and participation of the previously disadvantaged communities is seen as indicative of a shared purpose of achieving environmentally sustainable development. Shared purpose, implies that all stakeholders participating are interested in achieving the set objectives

of the project. Because community organizations have been involved in bringing about change in the society, this chapter will also provide an overview of the rise of such organisations.

In assessing how communities built up partnerships in KwaMashu, it is necessary to examine the theory of sustainable development, focusing on Local Agenda 21 as a tool for achieving such development at a local level. The environmental partnership approach provides a framework for building effective partnerships and will be used to analyse the partnerships that exist in KwaMashu.

2.2 Changing perceptions of the environment

Since the Rio Declaration (Earth Summit on Sustainable Development in 1992), there has been a shift from environmentalism to an emphasis on sustainability. The term environment previously encompassed the biophysical element, subsequently a more diverse approach, which includes social, economic and biodiversity, has been introduced. Environmentalism may be defined as a wide range of ideas and practices, which demonstrate a concern for nature-society relations (Cloke *et al.* 1999). The focus now is on conservation of the natural environment, maintenance of ecological processes, preservation of diversity and the sustainable use of species and ecosystems. Environmental issues have become linked to social justice, whereby societies gain powerful rights for public participation, and these rights are enshrined in the South African Constitution (Scott and Oelofse 1999). Civil societies have broadened their impact by building links with other sectors and extending their reach beyond the local area.

It is a fact that the physical environment deteriorates owing to human activities, thereby affecting the standards of living and the prospects for meeting human needs in the future. This assumption is based on the grounds that the characteristics of the human environment in the developing world include rapid population growth, rising numbers of people in absolute poverty, increasing urbanisation, widespread ill health, high levels of unemployment and lack of skilled personnel (Ghai and Vivian 1992). These features

highlight the fact that the challenges for sustainability are quite different from those of developing countries.

It is, therefore, important to understand how different people perceive the environment and the positions they assume in relation to the environment. Even though people have held and articulated varying attitudes towards nature, the 1960s have been identified as the period in which a coherent philosophy and language surrounding the environment was first formed (Elliot 1994). The changing ideas of the environment that ensured a greater participation of groups and nations from the developing world in the environmental debate, altered the perceptions of developing countries that existing industrial problems would hinder their development objectives.

Sustainable development is a post-modern normative approach which has become a widely accepted paradigm in the planning and development policy internationally and, recently, in South Africa. From this perspective, environment is perceived as a holistic entity that integrates social, economic, political and biophysical concerns. It allows for the recognition of indigenous people and ensures their protection from environmentally unsound practices, thereby allowing transparency and unrestrained participation (Southey *et al.* 2002).

A sustainability agenda recognises the importance of maintaining ecological systems while developing and enhancing social capital, involving people in decision-making, addressing issues of social justice, and ensuring that decisions taken are economically viable and sustainable (Scott 2000). Such changes caused the representatives of governments from the developing world as well as the developed countries, to recognise their role and that of their populations in working towards sustainable development in future (Elliot 1994). A wide range of policies and legislation exists for the management of the environment in South Africa, much of which is framed within the sustainability paradigm.

Sustainable development seeks out partnerships between businesses, and government and requires the participation of the entire public. Oelofse (1998) states that the

keystone to sustainable development is the promotion of partnerships between local people and the private and public sector. However, environmental management begins with a sense of collective vision about the future and continues with appropriate balance between consumption and environmental quality. Abers (1998) notes that the idea that governments ought to enter into partnerships with organised civil society has become increasingly fashionable in the fields of international development and comparative political science.

2.3 The rise of community development organisations.

The period 1983–89 is remarkable for the emergence of organisations and associations in a rising tide of opposition to local authorities and with the aim of incorporating certain areas into KwaZulu-Natal. Such organisations include residents' and ratepayers' associations and rent action committees. There was also an increase in the number of NGOs set up to promote social justice and democracy in all arenas of civil society. Many of these organisations, based chiefly in Durban, ran on a non-profit basis and were supported financially by churches and other donor organisations (Makhathini 1999). Many became affiliates of the United Democratic Front (UDF) in 1983, although some later withdrew from active participation when the political situation in the province became more sharply polarized in the later 1980s.

The transition from apartheid to democracy required a substantial change in the forms and institutions of urban management and development (Makhathini 1999). The mismanagement of urban resources has led to a complete break down of the urban system. This resulted in an emergence and growth of civic groups (referred to in this study as social movements) under urban apartheid conditions. Social movements are a voice of collective protest arising as a result of a clampdown on political organisations. They are formed by human beings engaged in discourses and practices designed to challenge and change society as they define it, and are constituted by people associated with non-institutionalised discourses and practices of change (Scott 2000). These voluntary movements consist of human beings engaged, usually collectively, in actions interacting with institutions in society to bring about change (Garner 1996). These collective

actions are concerned with bringing about changes in society in order that society becomes different from its existing state.

The new political dispensation in South Africa provided a new conception of citizenship and civil rights in terms of the South African Constitution, whereby the previously disadvantaged communities are now defining themselves as citizens and relate to the rest of society. The social movements, as is characteristic of post-modernity, focus on gender, race, ethnicity, multiculturalism, community and the environment and have often become an alternative to class politics (Scott and Oelofse 1999). These movements operate at a local level so that the local terrain be it city, region or neighbourhood, is the effective terrain for the engagement in civic life beyond the household and in relation to the state and the corporate economy (Garner 1996). This marks a shift away from the centralised decision-making structures and bureaucracies of the modernist period with an increasing devolution of power to the local level in political decision-making. Environmental issues have also become highly politicised during this period of transformation (Scott and Oelofse 1999).

Public lobbying and the role of community based organisations in ensuring that environmental concerns are integrated into developmental planning is increasing, resulting in business, industry and the public sector having to pay more attention to the environmental impacts of the processes in which they are involved (Marsh and Oelofse 1998). With local governments' participation in development diminishing, local communities are expected to play a more central role than their capacity allows. The main factor in determining this role is the civics' ability to ensure the same level of public participation in reconstruction as was evident in resisting apartheid.

Social movements in KwaMashu township have moved from resistance to deconstruction and finally to reconciliation in their opposition to the apartheid city (Makhathini 1999). These social movements are involved in collective action and come into being as a result of problems emanating from the area. They are thus expected to participate in the development and upliftment of their own area.

2.4 Sustainable development

Poor environmental quality is inextricably linked to the urban centres of the developing world (Elliot 1994). The urban community live in areas and conditions associated with inherent substandard environmental characteristics. Poor planning has resulted in a negative impact on the physical environment. The consideration, by the global community, of detrimental factors affecting the environment, has resulted in the emergence of the concept of sustainable development. It was recognised that protecting the environment requires integrating ecological consideration into social, economic and foreign policy making (French 1978). In this study, the challenges and opportunities of sustainable development will be seen to lie in both the human and the natural environment.

Although the origins of a concern for both the environment and developmental processes go back several decades, this concern was made more explicit, and was refined in 1987 in the report entitled “Our Common Future” (World Commission on Environment and Development - WCED 1987). It states that the environment is where we live, and development is what we all do in attempting to improve our fate within that abode. The Commission has rejected the option of considering the environment in isolation and committed itself to an integrated approach to issues relating to the environment and development. The United Nations Conference on Environment and Development (UNCED), commonly known as the Rio Conference of 1992, was the follow up to the Brundtland report (also known as Our Common Future), and sought to move towards the achievement of Brundtland’s objectives, i.e. environmental protection, economic growth and social equity. This marks the emergence of Agenda 21, which was aimed at ensuring sustainable development at a local level through implementation of the LA 21 principles.

The World Summit 2002, which was held recently in Johannesburg, reaffirmed that partnerships are the best tool to achieve sustainable development at a local level. The World Summit 2002 also emphasised the principles of LA 21 and guidelines to implement these were provided (these will be discussed later in the chapter). This study

will explore the link between resource management, community participation and formulation of partnerships at local levels to achieve sustainable development.

2.4.1 Defining sustainable development

There are many definitions of sustainable development. The landmark definition first appeared in 1987, and describes it as: “development that meets the needs of present generations, without compromising the ability of future generations to meet their own needs” (WCED 1987). The Brundtland definition of sustainable development has a strong ethical stance (or a strong people-centred approach), concentrating on the satisfaction of human needs rather than on the protection of the environment in general.

The definition strongly suggests that there are limits to be considered in taking advantage of the natural environment, in order for future generations to be able to share the same benefits as are enjoyed at present. This approach to sustainable development implies that present levels and methods of resource utilization should not degrade the environment to the point that resource availability in the future will decline. One of the most important aspects of sustainable development is environmental management. The ability of the environment to be able to meet the present and future needs depends partly on the state of technology and impact of social organisations. It should be noted that in many situations in the developing and underdeveloped countries, improved living levels are dependent to a large extent upon increased consumption of resources (Ghai and Vivian 1992). Meeting essential human needs relies partly on achieving full growth potential and ensuring equitable opportunities for all.

The idea of sustainable development has attracted groups with different interests. Making the development sustainable means ensuring that people’s needs are being met, that the resource base is conserved, that the environmental and cross sectional concerns are integrated into decision-making process and that communities are empowered (Fitzgerald *et al.* 1995). Sustainable development is concerned with improving the quality of life as well as satisfying human needs. It implies the need for people-centred initiatives.

Sustainable development is perhaps best seen as an aspirational goal, now endorsed by governments, business and civil society (Ghai and Vivian 1992). Rather than focusing on economic growth in isolation, sustainable development requires the integration of the social, economic and environmental dimensions in corporate and public decision-making, within a government framework that ensures full participation of the local community. Meeting the needs of the future depends on how well we balance social, economic, and environmental processes when making the decisions. These objectives are itemised below: -

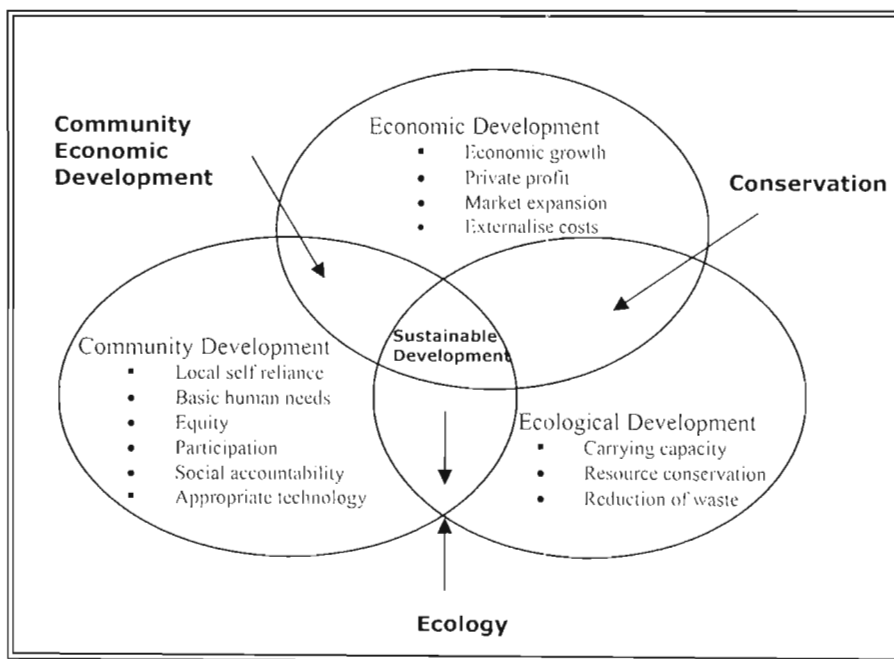


Figure 2. Sustainable Development challenge (Oelofse 2000)

Economic development includes access to assets providing an adequate livelihood or productive economic activity, as well as providing for the creation of wealth. It involves how we measure and value growth so that it is equitable, long term and reflects quality of life elements. *Social development* ensures a sustainable level of population and access to education, health care and family planning services. It includes a shelter, which is healthy, within a neighbourhood with provisions for clean water, drainage, transport and protection from environmental hazards. It focuses on empowering the community to manage their own environments. It stresses community participation and equity, focusing to the most vulnerable people in the society (Oelofse 1998).

Environmental / ecological development is concerned with the conservation and enhancement of the natural resource base (air, water, soil and biological diversity). It focuses on the sustainable use of natural resources and the capacity of environmental systems to reflect the carrying capacity (Oelofse 1998). These development processes often contradict one another. For example, the passing on of ecological costs has a negative impact on the environment, and is the result of a certain activity. Sustainable development is the process of bringing these development processes into balance with each other.

Meeting the needs of the present without compromising the ability of future generations to meet their own needs, means sustainable use of renewable resources, and keeping within the absorptive capacity of local and global sinks for waste. Sustainable development is a normative theory against which development may be measured. As a yardstick, environmentalists and developmentalists would be able to gauge whether present development is moving towards this goal or not. It is not an instant cure for all the environmental problems of the cities, but rather a pathway leading in the right direction. It focuses on the whole system, long range planning, and front-end solutions (Oelofse 1998).

The objectives of sustainable development cannot be met without incorporating its principles, i.e. futurity, ecological integrity, social justice and public participation. *Futurity*, also referred to as "*Intergenerational Equity*", ensures that future generations are as well off as the present generation through passing the human and natural capital into the future generation" (Oelofse 1998). Although it is difficult to predict the needs and the problems of the future, environmentalists suggest the application of the precautionary principle to reduce the impact to be passed on to future generations. Sustainable development is future orientated in that it seeks to ensure that future generations are at least as well off as current generations. However, collective rather than individual action is required in order to affect these socially desirable inter- and intragenerational transfers.

To improve the quality of life of the people living on earth, it is important to maintain the ecosystems as life supporting systems. This is known as *ecological integrity*, which refers to the healthy functioning of the ecosystems. There is a need to ensure that these resources are distributed fairly to the present society. Without considering the well-being of the present generation, it is impossible to ensure the improved quality of life of the future generation (Oelofse 1998). This is known as *social justice*. Sustainable development means providing opportunities to all stakeholders for meaningful participation in the decision that affects their livelihoods, and helping to build capacity to enable such participation.

These principles create a framework for achieving social and environmental justice in environmental decision-making in order to ensure equity and provide protection for vulnerable communities. *Public participation* is a prerequisite for sustainable development in any development. Resource management projects depend heavily on broad-based co-operation and collaboration because they often rely on actions of individuals which, by their nature cannot easily be coerced or enforced (Ghai and Vivian 1992).

Partnerships are important, not only for promoting efficient policies, but also for empowering those groups that traditionally have been excluded from government decision-making. Such an approach aims at achieving a more democratic system. This study intends to look at the dynamic local level initiatives concerned with environmental degradation and traditionally sustainable resource management practices through participation and partnerships operating in KwaMashu Township.

2.5 Developing partnerships

Environmental partnerships as described by Long and Arnold (1995), are the processes whereby different stakeholders coalesce to share resources in order to solve environment-related problems. Environmental partnerships, as a tool of locality-oriented interactions, may persist in virtually any locality, rural or urban, where interaction in daily living occurs, even in the larger areas of society and culture. These

partnerships are effective through the participation and motivation of the stakeholders who establish them.

The concept of '*environmental partnership*' emerged at the Rio Summit where emphasis was placed on the local governments to implement LA 21 through the formulation of partnerships with the local communities. A comprehensive action plan was agreed upon to be implemented by governments in every area in which humans impact on the environment (Southey *et al.* 2002). However, the Rio Summit has been widely criticised for its inconsistency, and inadequacy in implementing the set goals.

Partnerships are a necessity because they enable the local community to commit and continuously monitor its environmental management and social performance. Murdock and Sexton (1999) define a partnership as voluntary, collaborative activities jointly undertaken by communities and businesses, regulatory agencies, or non-governmental organizations in order to share responsibility for safeguarding public health, protecting environmental quality, and improving the use of natural resources.

The term "shared resources" implies that all the parties contribute resources to the partnership. It is implicitly understood that previously marginalized communities have less to offer in terms of equipment and financial resources. They can provide a workforce to implement the project as they have a strong base knowledge of local issues, events and cultural quality. Partnerships elevate that underutilized knowledge and transform it into a workable tool for all. The involvement of all stakeholders in the partnership ensures solutions that are more systematic and long lasting.

Long and Arnold (1995) state that the principles for the development of partnerships are, increased stakeholder participation which offers the opportunity to resolve value differences, set priorities, research problems, and implement solutions. Long and Arnold (1995:8) define partnership as: "a system that conveys a sense of constructive and voluntary collaboration among different stakeholders in environmental protection and natural resource management".

Partnerships are voluntary collaborations between two or more organizations with a jointly defined agenda, focused on a discrete, attainable, and potentially measurable goal (Murdock and Sexton 1999). The potentially measurable goal for the two partnerships that were developed in KwaMashu is a clean, waste free and healthy stream.

There has been a growing attention on partnerships in the World Summit on Sustainable Development (WSSD) 2002. Specific and measurable actions with predictable resources and time frames were taken to achieve sustainable development at global, national and regional levels. These included thematic priorities and guiding principles that were put forward to countries to encourage them to implement partnerships. The thematic priorities (Water, Energy, Agriculture and Food Security, Health, Agriculture, and Biodiversity-WEHAB) recognise the strategic importance of biodiversity and ecosystem management (Southey *et al.* 2002). The six themes mentioned (thematic priorities) have been identified as having a direct link to and significance in respect of local problems.

Partnership initiatives were an important element of the summit in that they were perceived as a tool to build the capacity of the community in a sustainable manner. Two outcomes categories were expected from the WSSD namely, Type 1 outcomes and Type 2 outcomes. Type 1 outcomes refer to partnerships that are negotiated at governmental levels and are embodied in the implementation plan and declarations from the summit (Southey *et al.* 2002). Type 2 outcomes are the voluntary agreements between a group of partners (generally drawn from private, public and civil society) that are strategic, of global significance, targeted, and can be monitored (Southey *et al.* 2002).

Type 2 initiatives were a central focus of the summit in that they facilitated the articulation and implementation of a shared vision, include people, and afford transparency. It was stressed that Type 2 outcomes are needed to contribute to Agenda 21 implementation and the achievement of the partnership in order to promote sustainable development. Elements of successful partnerships were identified as having

leadership and common objectives, clearly defined deliverables, a participatory approach, where ownership of initiatives is shared among all partners, and leveraged private sector resources and capacity. Partnerships are expected to make a concrete contribution in improving the quality of implementation by involving stakeholders who have a direct impact on sustainable development (Kara and Quarless 2002)

Type 2 partnership initiatives focus on creating enabling conditions and developing capacities at local and national levels to reduce poverty, protect the environment and achieve sustainable development (Southey *et al.* 2002). The guiding principles for this partnership are linked to the implementation of Agenda 21. These partnerships are aimed at connecting conservation with economic activities, and on focusing community-based initiatives to build awareness and to improve the capacity of the community. In order to clarify the different outputs of the summit, these have been tabulated below (see Table 1).

The international community has begun to recognise the value of managing biodiversity through partnerships. This will be critical in enabling civil society and encouraging innovative solutions and private sector commitment. The Type 2 partnerships, even though they were not negotiated by governments, needed to be agreed to by those directly involved, who would commit themselves to taking the partnerships forward and making them work (Southey *et al.* 2002). This indicated an increasing global appreciation of the value of decentralisation, an approach which encouraged locally derived and driven initiatives.

The Type 2 partnerships will be led by the United Nations Development Programme (UNDP) with projects being nominated from around the world and judged by an independent international group of representatives from a range of sectors of development and biodiversity (Southey *et al.* 2002). In recognising that partnerships should reflect local priorities, an award will be provided for projects with proven sustainability that demonstrate a co-operative approach to local skills development and the potential for capacity building.

Table 1. Outputs of the summit

OUTCOME	SPHERE OF OUTCOME	DESCRIPTION
Type 1 outcome Political Commitment	Political Declaration	The States will make the political declaration. The declaration will signify political commitment to the outcomes of the Summit. The text must communicate the political imperative under-girding the priorities and targets embodied in the negotiated text.
Type 1 outcome	Global census Implementation Planning	The negotiated Chairman's Paper establishes the framework and a process to achieve implementation plans by providing the time frames and targets on the priority areas. The text has to provide the basis for the cluster or themes, which will constitute the areas for planning
Type 2 outcome	Enhanced Delivery Initiatives supporting Type 1 outcomes	The nature of sustainable development requires the mobilization of civil society, governments, and the business sector to strengthen commitment and enhance delivery. The Johannesburg summit process has created considerable positive energy and planning related to anticipated objectives to be agreed on at the Summit. These cannot substitute for inter-governmental agreements on major areas of implementation, however they can play a major role in the process of delivery. Type 2 responses need to engage with the framework and targets set by the implementation planning process.

Source: (Kara and Quarless 2002)

2.6 Participation as a tool for sustainable development

The principle of sustainable development espouses the need for a communal approach to environmental planning and management. The participation of people is perceived as an important dimension of an environmentally sustainable pattern of development. A broad range of stakeholders needs to be involved in local environmental problem solving in which they have interest. Participation refers to an active involvement of well-informed people, who are enabled and empowered to play a role in environmental decision-making (Oelofse 1998).

Public participation in development is broadly understood as the active involvement of people in making a decision about the implementation of processes, programmes and projects, which affect them (Slocum *et al.* 1998). Scott and Oelofse (1999) define public participation as the involvement of the public in decision-making around issues that affect their lives. It is therefore a form of democratisation of decision-making, underpinned by the promotion of sustainable development by governments as a framework for macro planning. Public participation has become institutionalised in all spheres of government (Scott 2000). Such integrative decision-making could help to resolve many of the controversies that have arisen over the impact of environmental and natural resource policies. Public participation may be encouraged for the purpose of transforming a present system or for simply maintaining the status quo.

Public participation in environmental decision-making is a process aimed at reducing the power differentials, and ensuring social movement equity among groups in society who have an interest in, and may be at risk of suffering from the potential impacts of a proposed or existing environmental planning (Scott and Oelofse 1999). The process of participation should be facilitated so as to ensure social and environmental justice in order that all participants have the opportunity to participate and influence the outcome of environmental decision-making (Scott and Oelofse 1999).

Stakeholders may be either primary or secondary. The primary stakeholders are those whose living environments or livelihoods are impacted upon by an existing environmental problem. Secondary stakeholders are those who have interest in the

issue. Sustainable development has become a widely accepted paradigm in participation and development policy. Sharp (1995) states that the development projects designed and implemented without a full involvement of the intended beneficiaries have had a high rate of failure. It has been proved that projects planned with the community from the outset, at an appropriate level and using their skills and resources, have had a relatively high rate of success as they enable the people who participate to engage in a genuinely sustainable process of self-improvement.

Local livelihood requirements necessitate the rehabilitation and conservation of the resources available to local communities, and the ability of the people to understand such efforts on the local level are a prerequisite for successful environmental management (Ghai and Vivian 1992). At the same time, the key social groups, national authorities, and international communities also have a vested interest in protecting and improving natural resources. Managing resources sustainably at a local level is essential for achieving global sustainable development. Ghai and Vivian (1992), argue that grassroots participation is required in virtually every situation where environmental degradation threatens. This extends from situations in which pastoralists must maintain social control to prevent the overexploitation of resources, to those in which industrial pollution will only be constrained by activities which are initiated at a community level.

Social controls have been developed in many communities explicitly to regulate resource use and to ensure that the environment is managed sustainably. Public participation is perceived as an important dimension of environmentally sustainable development for these basic reasons:

- firstly, when participation rests in some form of organisation, it is able to encourage the direct management of local resources by the users;
- secondly, such responsibility may be exercised in the collective interest embodied in the organisation.

Today, community representatives and members of citizen groups often participate, along with government officials, business leaders and other stakeholders in decisions about whether and how to deal with environmental hazards and related risks (Finnegan

et al. 1999). Participation in resource management at a local level explores, among other things, the dynamics of the local-level initiatives concerned with environmental degradation and traditional sustainable resource management practices. Khan (1998) states that the principle of public participation in South Africa is accepted as an essential component of responsible environmental decision-making.

However, there are obstacles relating particularly to the involvement of the poor, mainly black communities, which are linked to the socio-economic legacy of post-apartheid policies and socio-political factors. Socio-political factors have contributed to the fact that many black communities remain unfamiliar with their neighbouring environments. Low levels of education and widespread illiteracy among the poor also pose a considerable obstacle to the process of participating in environmental decision-making since this requires an environmentally informed and aware community. Despite the growing importance of community-based decisions about environmental issues, there is a general lack of knowledge and understanding about how to involve the communities in the decision-making process.

Redclift (1991) calls for a substantial rethinking of the theoretical basis of sustainable development, which should include not only economic, but also political and epistemological dimensions. The question of participation, including empowerment and the extent of the local knowledge system, must be addressed by any programme concerned with environmental issues within the context of development. The voluntary participation of local people in the projects indicates their desire to survive and to improve their living levels and demonstrates that they are sensitive to the aesthetic elements of their surroundings. Ghai and Vivian (1992) state that collective action depends to a large degree on social, economic, and political structures which influence community dynamics at a local, national and international level. The success of this environmental activism depends on an ability to form a coalition with regional, national and international groups with similar interests.

Increased community involvement in decision-making has been triggered by a variety of environmental issues including cleaning up of hazardous waste, identifying and

evaluating disease clusters, protecting natural resources, encouraging pollution prevention, and formulating plans for sustainable development (Finnegan *et al.* 1999). The goal of community-based environmental decision-making is to mobilise whole communities to ensure that members are knowledgeable and that they participate fully and meaningfully in environmental decisions affecting them. O’Riordan (1998) suggests that the transition to sustainability could be community led and location specific, but appropriately connected to higher levels of governance and to the global spending patterns.

Local participation engenders a greater responsiveness to community needs, an improvement of the socio-economic status, community empowerment and self-reliance. One of the global initiatives to ensure public participation at a local level is Agenda 21. This will be discussed in detail in the following section.

2.7 Implementing partnerships at a local level.

The concept of sustainable development has been adopted as a guiding principle at all levels of policy-making from national to international and also at local levels. Local level involvement has been placed high on the scale as the most appropriate means of promoting sustainable development policies and initiatives, with a particular emphasis upon local authorities as a major delivery mechanism (DEAT 1999). It is argued that these bodies are ideally placed to formulate a multilevel corporate strategy for the sustainable management of local resources.

A major boost of such activity was provided by the United Nations (UN) Agenda 21 initiative, which proposed that each local authority area should have a plan for sustainable development in place by the end of 1998 (Gibbs *et al.* 1998). The purpose of Agenda 21 is to change the nature of economic development in order to enable people to increase their quality of life without irreparably damaging the earth’s natural resource base on which all life depends. The central contribution to be made by local authorities implementing the Agenda 21 principles agreed on at the 1992 Earth Summit, requires the active participation of local authorities and communities, notably through adopting LA 21 processes (Halpern 1992). At the World Summit 2002, there was no

substantive modification of these principles, however, guidelines were provided to ensure the successful implementation of the essential components.

The role of the local authorities is to develop the LA 21 programme and increase public participation in sustainable environmental management. Agenda 21 guidelines and principles require that local authorities initiate comprehensive LA 21 strategies for sustainable development, with community participation being the priority throughout. LA 21 is a comprehensive and participative process, seeking better ways to integrate environmental, social and economic concerns at a local level through the analysis of environmental conditions, the prioritisation of issues and the implementation of action plans (DEAT 1999). LA 21 provides benefit for the communities to eventually have a better quality of life in terms of an improved environment, social aspect and the economic sphere. It is a new and separate process designed to replace or compete with existing planning and development initiatives. It is a process for developing action plans to address complex problems inherent in modern urbanised societies (Halpern 1992).

The concept targets local authorities, encouraging them to form partnerships with their communities for the purpose of solving local problems. Gibbs *et al.* (1998) argued that local authorities have made little attempt to integrate sustainable development with economic development. Rather sustainable development is being increasingly appropriated as a means to legitimise the continuation of the past forms of economic development and to marginalize the more radical implications of taking ecology seriously. The interconnection between local governance, the planning process and the involvement of citizens is a critical aspect to any sustainability programme.

Burgess *et al.* (1998) found that, using the bottom-up approach and partnerships in achieving sustainability initiatives, enhances the practical progress towards sustainability. LA 21 moves from a sector based approach to a multi-sectorial integrated approach. South Africa is currently struggling to overcome the legacies of the past forms of governance and economic development, which led to one of the most unequal distributions of resources in the world. Urban areas in South Africa frequently

experience the greatest concentration of social, economic, and environmental problems as the needs of rapidly growing populations place increasing pressure on limited resources. LA 21 provides the local authority with the means of addressing local problems within a holistic framework.

LA 21 is currently being implemented at a national, provincial, and local level in South Africa. Local authorities are the driving force behind and powerful actors in the LA 21 programme (DEAT 1999). LA 21 allows the local authorities to be co-ordinators but not dictators of the urban area. Its programmes have been implemented in Durban, Johannesburg, and Cape Town, with Durban having completed the first phase in which the existing status quo of development has been determined, within a worldwide initiative programme called the Model Communities Programme (CSIR 1999). The strategic environmental assessment in South Durban is part of the implementation of LA 21 by the Durban Metropolitan Council.

The consensus consultative process of LA 21 may be linked to the formulation of Local Development Objectives (LDOs) and should facilitate the development of Integrated Development Plans (IDPs), as well as the implementation of the objectives of the Urban Development Framework (DEAT 1999). The LA 21 recognises that many problems and solutions related to sustainable development have their roots in local urban and settlement activities. The principles and steps to LA 21 will be discussed below.

2.7.1 Principles of Local Agenda 21

LA 21 is based on the principles of the Earth Summit declaration on Environment and Development, which may be summarised in seven sustainable development principles (DEAT 1999).

Ecological limits: All citizens and communities must learn to live within the earth's carrying capacity.

Partnerships: Alliances among stakeholders are established for collective responsibility, decision-making and planning.

Accountability: All stakeholders are accountable for their actions.

Participation and transparency: All major groups of society are directly involved in sustainable development planning and all information is easily available to the general public.

Systematic approach: Solutions address the underlying causes of problems, and the entire systems that are affected and not only the symptoms.

Equity and justice: Environmentally sound, socially just and equitable economic development must go hand in hand.

Concern for the future: Sustainable development plans and actions address the long and short-term trends and needs.

The LA 21 programme is not legislated but it cannot be ignored, as it is the best tool at a local level for achieving global sustainable development. It allows the community to take responsibility for improving their quality of life. There are five important steps in a LA programme that were identified by the ICLEI (International Council for Environmental Initiatives), namely: establishment of partnerships, community-based issue analysis, action planning, implementation and monitoring and evaluation and feedback (DEAT 1999). The progression of these steps is illustrated in Figure 3 below:

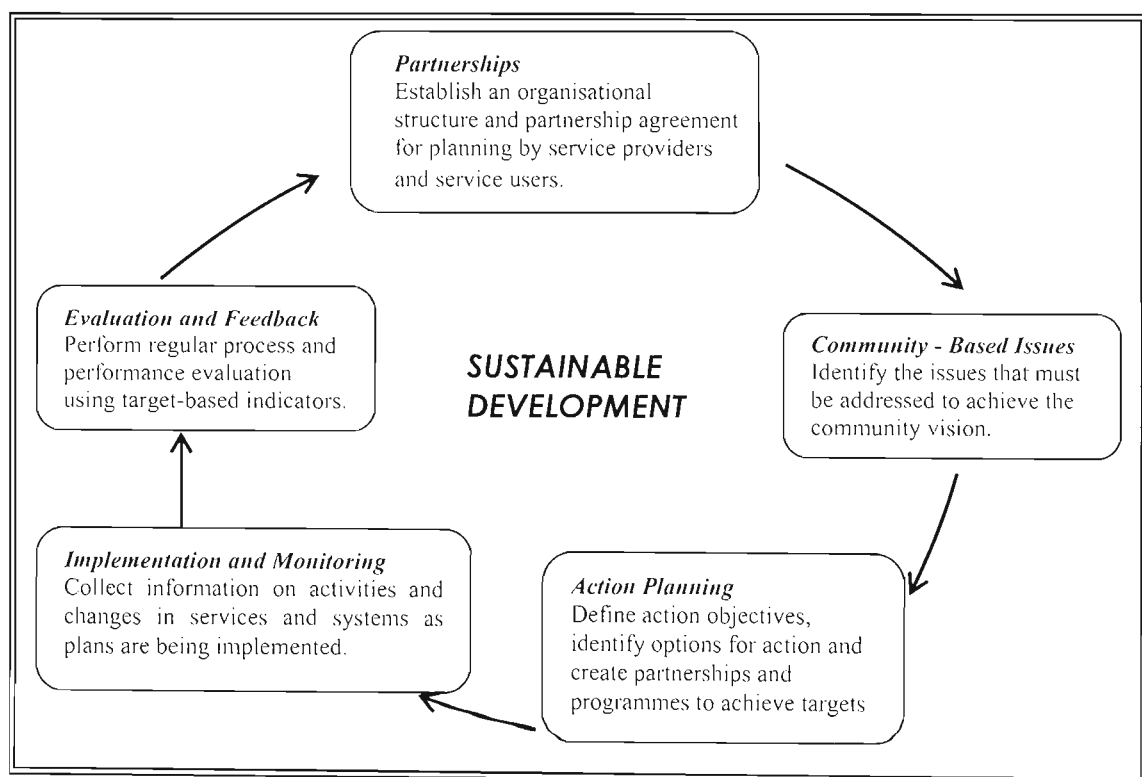


Figure 3. A Framework for Local Agenda 21 (A five step approach)

2.7.2 The establishment of partnerships

Partnerships are required in order to address the increasing pressure on the environment. Urban areas in South Africa frequently experience the greatest concentration of social, economic and environmental problems (Scott and Oelofse 1999). Partnerships may encourage the greater responsiveness of all the stakeholders involved since they should include the business sector, community-based organisations, non-governmental organisations, development agencies, service providers and government departments. Such co-operation encourages the sharing of knowledge and resources. The LA 21 targets communities that are both knowledgeable and have the tools to alter their circumstances to promote more sustainable economic development. This is consistent with the current situation in South African urban areas as many communities are struggling to overcome legacies of past forms of governance and economic development. Physical constructions and development work in a community require financial resources, which are often unavailable within the community itself. Therefore, partnerships are very important in ensuring the success of projects.

Partnership structures may take many forms, from forums with specific limited-term mandates, to statutory committees with long-term mandates. It is important that a dedicated structure be created to ensure stakeholder involvement. In terms of South African's Constitution, the duty of a local government is the promotion of a safe and healthy environment and to ensure that communities and community organisations are involved in local governance. The resources that citizens offer in a community-based environmental partnership differ from those that the government and businesses offer. Businesses offer more financial aid and technical expertise than communities do. Citizens bring their knowledge of local circumstances, labour and values to the partnerships. The focus of this study is to understand how partnerships contribute to solving environmental problems at a local level, involving the community as important role players in the partnership. Partnerships offer forums for a reassertion of citizen influence over that of corporate communities. They represent a rejection of environmental decisions that use objective analysis to override local and subjective knowledge and the experience of the people who live with the problem.

Long and Arnold (1995) state that once a partnership has been established it progresses through several distinct stages, moving from the initiation phase to the execution phase, and finally arriving at the closure or renewal phase (Refer Figure 4). These phases may be referred to as the Partnership Life Cycle (PLC). The *initiation phase* is when leaders determine who should participate and they secure both the commitment of critical organisations and the resources required to operate a partnership. The *executional phase* focuses on achieving the aims of the project. Participants seek solutions to the problems identified in stage 1. The *closure or renewal phase* focuses on the planning for and implementation of the policies. The participants may either decide to terminate the partnership at this stage, once the required outcome has been achieved, or to continue the relationship.

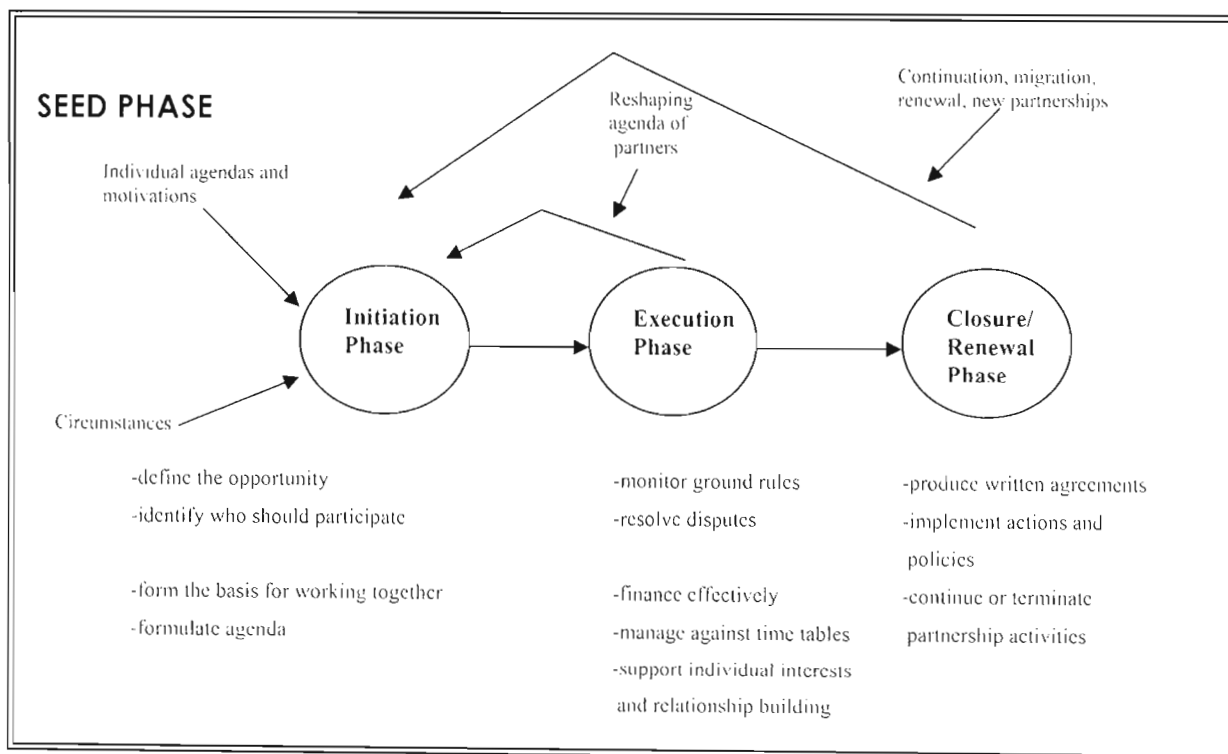


Figure 4. The Partnership Lifecycle model (Long and Arnold 1995)

The PLC structure will play a key role in the analysis of environmental partnership activities in KwaMashu. It identifies how the partnership was developed. It also identifies whether the partnership was successful in encouraging the participants in initiating other projects for continued improvement in their areas.

a) **Types of partnership**

According to Long and Arnold (1995), there are four types of partnerships, namely preemptive, coalescing, exploration, and leverage partnerships.

Preemptive partnerships attempt to defuse a situation that is already hostile or to preempt a situation that is potentially hostile. These partnerships tend to be formal and focused because they are highly constrained by previous conflict among the participants. This resembles negotiations where parties with potentially incongruent interests identify areas of congruence. In this type of partnership, conflict has been growing over a resource issue, often between conservationists and the developers. There may be a threat of irreversible damage (Long and Arnold 1995). A preemptive partnership is a pro-active dialogue or project involving traditional adversarial organisations (Long and Arnold 1995). The collaboration involves environmental issues that are of great importance to each group and that have previously been a source of conflict.

Coalescing partnerships bring together parties that depend on each other to accomplish their goals and that are rivals competing for the project and resources. This partnership represents the effort of numerous parties to bring their solutions into a coherent package, and to manage across boundaries when environmental quality is not responsive to the efforts of any single organisation. These are more voluntary in that they rely upon the abilities of the participants to find common areas of interest in their missions and activities. The process usually involves committed stakeholders working hard together, and is not necessarily open to the public.

In the coalescing partnership, parties working to enhance environmental quality are dependant on the actions of rivals that work on the same environmental issue (Long and Arnold 1995). In this case, parties have come to a common vision, because of conflict, that aligns the organisation towards the priorities which will have maximum impact in the environment. Coalescing partnership deals with environmental issues that are central to every organisation involved in a partnership (Long and Arnold 1995). The objective of the collaboration is for the parties to coalesce their different strategic plans into a successful plan to achieving larger goals. The main objective of a coalescing

partnership is to develop a plan to improve environmental quality that all stakeholders can support.

Exploration partnerships are opportunistic attempts to research or investigate environmental issues of joint concern. Participants often do not have a strong sense of the nature of the environmental problem they are trying to solve. The solutions are less clear-cut. This partnership represents efforts to contribute to environmental and natural resource problems for which there are no obvious solutions.

In this case, parties have identified an environmental problem but have not found a solution to it. Interested parties then seek out others with expertise in the issue that has to be resolved (Long and Arnold 1995). The issue might have emerged as a result of public awareness and concern. Exploration partnerships do not become clearly defined until the parties come together and define them (Long and Arnold 1995).

Leverage partnerships are the most opportunistic, win-win partnerships. They allow each party to make a modest investment in environmental improvement in return for a relatively high social, political or financial return. In this type of partnership, one group needs additional capacity and resources to implement an identified solution to an environmental problem (Long and Arnold 1995). This study will focus more on the leverage partnerships as it fits the case study selected and will be used as a model to analyse the case. Further possibilities in establishing a successful partnership will be explored.

b) Leverage partnerships

Environmental partnerships are a function of public demands, the regulation of environmental and natural resources, and the changing attitudes of stakeholders. They are more about people than anything else. People feel frustrated about environmental degradation and act upon these feelings, creating partnerships to deal with the situation. Leverage partnerships are partnerships aimed at generating positive outcomes for all the participants through shared knowledge and resources. They enhance environmental quality and generate clear victories for the participants (Long and Arnold 1995). All

parties have an interest in the issues being resolved and a willingness to participate to produce positive environmental results.

i) Initiating Leverage Partnerships

Leverage partnerships are initiated as a result of the commitment of individuals or groups who convince other stakeholders or organisations to participate in the environmental management partnerships. The people who champion the project also participate directly in it (Long and Arnold 1995).

ii) Financing Leverage Partnerships

The mutual expectation in the partnership is that everyone will contribute something of value to the partnership, i.e. knowledge, money, equipment, political influence, or implementation skills (Long and Arnold 1995). It is well known that communities usually lack financial resources to achieve the goals of the proposed project. In the case of KwaMashu, businesses provided financial assistance for the project, with the local authority providing equipment.

iii) Executing Leverage Partnerships

Successful leverage partnerships will promote a sense of ownership in the participants. Long and Arnold (1995) assert that participants will see themselves creating a model that will have a significant impact on other organisations. For the partnership to be successful it must focus on a particular environmental issue and fulfil committed deliverables and deadlines. Leverage partnerships that fail to keep participants involved tend to lose focus. For example, the partnership in KwaMashu was focused on stream management and rehabilitation (as well as the catchment area). Once participants were given a sense of ownership, they were able to identify other related environmental projects that would enhance the quality of life of the community once executed.

iv) Closing Leverage Partnerships

Partnerships that produce positive results tend to have a rewarding effect to the participants. It is at this stage that participants may be motivated to initiate new project ideas, focusing on other environmental issues. Long and Arnold (1995) state that the

most important component of successfully closing a leverage partnership appears to be providing recognition and credit to participants.

c) **Mapping the partnership**

Long and Arnold (1995) classify a partnership using two parameters, i.e. conflict and relevance.

i) *Conflict*

This implies the degree of conflict that exists among some or all the participants about the environmental issue that resulted in the development of a partnership. This is grouped into three levels: high, moderate and low. *High conflict*: parties have sued each other, have battled publicly, and are becoming more concerned about the underlying environmental issues. *Moderate conflict*: organizations and individuals know each other and have had disagreements, but have not made these disagreements public. *Low conflict*: this implies that parties are aware of each other's existence but have never worked together previously to solve environmental issues.

ii) *Relevance*

This refers to the degree of commitment that organizations make to initiating, managing and concluding the partnership (Long and Arnold 1995). This depends on how each party involved in the partnership views the benefits of the co-operative effort. If the participating organizations feel that the joint activities will benefit their operations, they will heavily invest their resources to ensure the success of the partnership (Long and Arnold 1995). This criterion is also grouped into high, moderate and low relevance.

High relevance refers to the process when all participants view the partnership as a life or death process, which might make it difficult for the partnership to be effective and to provide a solution for the problems. At this level, the partnership has a tangible and immediate impact on participating organizations. *Moderate relevance* is when the issue is important but not critical to all participants. *Low relevance* applies when one group considers the partnership as critical, while others view the outcome as non-critical. Using both these scales and the diagram provided below, allows for the partnership to be mapped.

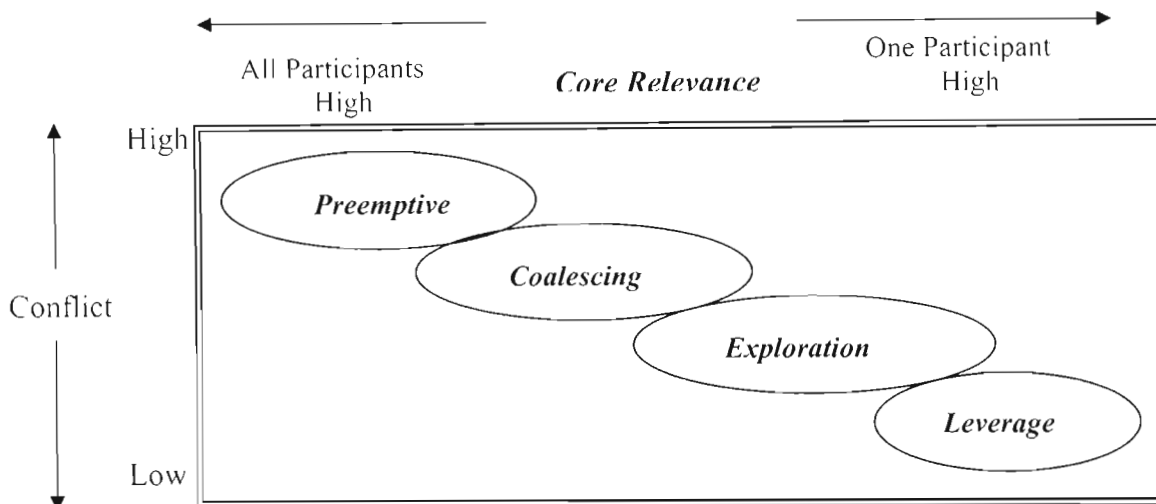


Figure 5. Mapping a partnership (Long and Arnold 1995)

2.7.3 Community – based issue analysis

The environmental policy in many countries, such as the United States and South Africa increasingly seeks to involve communities in environmental decision-making through partnerships. Communities have knowledge and experience of the problems affecting their livelihood. Communities also worry about their health and the environmental effects of decisions which they believe have been imposed on them by the government and industries. It is, therefore, important that they are involved in the analysis of these issues, using less technical methods. Communities provide local knowledge about issues of concern and more comprehensive information will more easily result in consensus being reached (Ghai and Vivian 1992). Increased community involvement in maintenance and environmental management in local areas will hopefully encourage further development as well as enhancing the quality of life. There is also a belief that involving people in decisions that will affect them, will produce greater public acceptance of resolutions that are implemented.

2.7.4 Action planning

This is based on issue analysis, leading to realistic and attainable strategies with concrete goals, and involves targets and projects designed by the community stakeholders, assisted by the local authority, to address issues and to achieve the community vision (DEAT 1999). Along the river in KwaMashu, specific action goals were established for identified problem which caused stream pollution through illegal

dumping and improper management. Groups adopted-a-spot with the aim of ensuring ongoing management of the area. These selected spots are currently used mainly for community gardening, which is a source of income to some of the group members. To be effective, this plan should be linked to existing formal planning processes and budgets. Action plans should contain a community vision, goal targets and triggers, an action strategy and a framework for the evaluation of progress (DEAT 1999).

2.7.5 Implementation and monitoring

This process involves the implementation of the defined community plans. The participants in the partnership will decide on the implementation plans and then those responsible will carry out the task. As stated earlier under the heading “Leverage Partnerships”, involving the community in the implementation of plans creates a sense of ownership, an understanding of the environment, awareness, capacity building and empowerment.

2.7.6 Evaluation and feedback

Continuous evaluation of the effectiveness of adopted action strategies is necessary to determine whether the set goals and targets are met or whether changes to the strategies are needed (DEAT 1999). Communities need to develop indicators to measure and evaluate progress towards sustainable development goals compiled by them. Indicators may also be used to measure how far a community has progressed towards sustainable development in general (DEAT 1999). Feedback is important to ensure that all participants are updated with the progress of the project.

Long and Arnold (1995) state that successful partnership changes the attitude of the participants. Changes in attitude are an indicator of the durability of agreements and lead to completed projects. Evaluation of completed projects provides information about the on-the-ground efforts of partnerships to improve environmental quality (Refer to Figure 6). Achieving the goals of the project ensures the continuous quality management of the local environment. Usually, communities would identify programmes to continue with the improvement of the area because of the benefits received in the initial project.

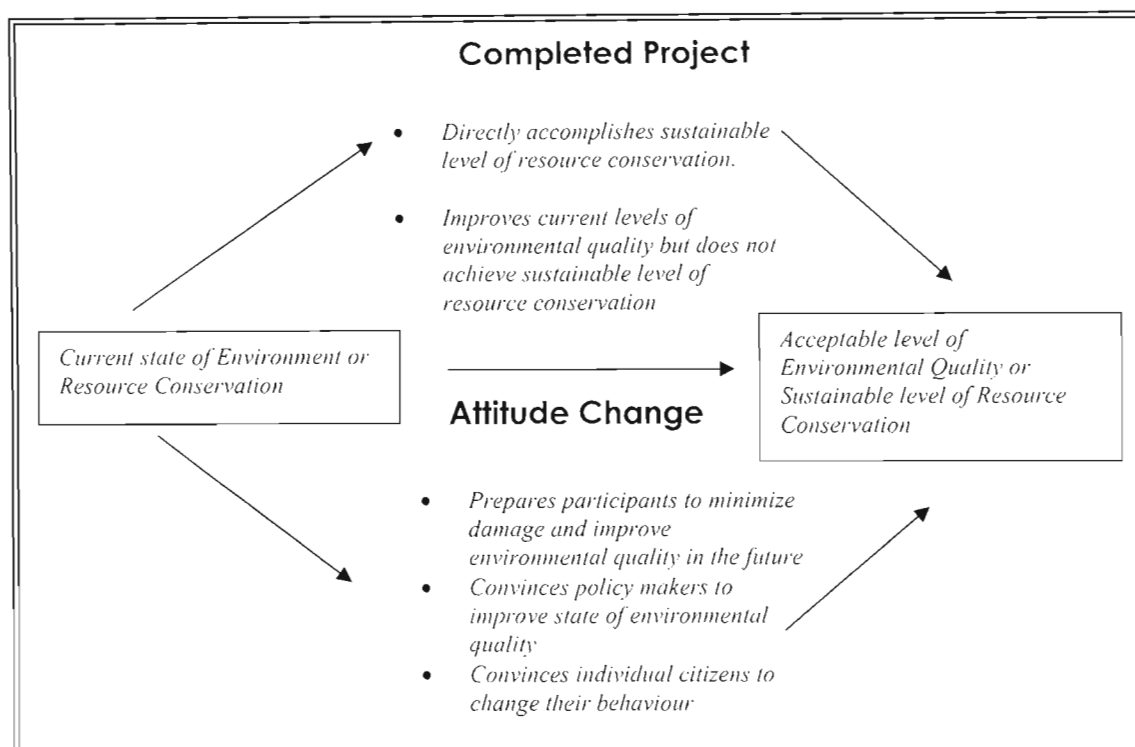


Figure 6. How a partnership contributes to environmental progress (Long and Arnold 1995)

2.7.7 Capacity building

Capacity building enables the community to work together to mobilize resources, to build trust among each other, to resolve conflicts and to network with others to achieve agreed upon-goals (Ghai *et al.* 1992). To achieve sustainable development at a local level, there is a need to build the capacity of the local people through participation in local initiatives (DEAT 1999). The community also needs to make informed decisions about the environment; therefore capacity building ensures sustainable management of resources.

Achieving the goals and objectives of the projects has a number of effects. These include a change in attitude, thereby enhancing community eagerness to participate in future projects (Long and Arnold 1995). Community decisions are intrinsically complicated, involving social and economic dimensions. The potential for participating in the projects involve value judgement about trade-offs. Capacity building in the community could allow the citizens to initiate local projects based on local

circumstances. Murdock and Sexton (1999) state that involving people in environmental decisions that affect them will help develop a larger population of socially responsible citizens.

2.8 Resource management in South Africa

The right of the participation of the community was announced in the Environmental Conservation Act (Republic of South Africa 1989) which articulates terms regarding the content of policies and regulations. Communities are henceforth entitled to exercise their rights and demand the protection of water resources and catchment areas. This law implicates the community in managing water resources and ensuring sustainable use thereof. Power has thus been given to the community to participate in processes to protect important resources using local knowledge and initiatives. Sustainable development has been chosen as a route for South Africa's first post-apartheid administration. The existing South African Constitution was framed in a context of attempting to promote citizen empowerment and transition to sustainability. The RDP (Reconstruction and Development Programme) process launched in 1994 sought to provide a fresh beginning in human-environment relationships and it contains features which are directly consistent with the major recommendations of the Brundtland Report on sustainable development (WCED 1987). South Africa, since 1990, has sought to extend its civil rights through a series of repeals of previous laws.

With the new legal dispensation in South Africa, communities have to understand their roles and responsibilities towards the environment and they are obliged to attain the necessary skills and the capacity to achieve equitable and effective partnerships. Environmental legislation is a tool through which society regulates or manages its activities so as to minimise negative impacts on the natural environment and to promote sustainable development. The National Environmental Management Act (Republic of South Africa 1998) deals with environmental problems in a holistic way, stating that the well-being of a community must be promoted through environmental education, raising of environmental awareness, and sharing of knowledge and experience. In South Africa there are number of geographical factors which have affected resource availability and have helped to shape the environmental legislation.

The UN Conference on Environment and Development, held in 1992, identified the need for a better system to manage the scarce, fresh water resources of the world. Delegates decided that by the year 2000 all countries should have national action programs for water management based on catchment basins and water-use efficiency. Under the National Water Act (Republic of South Africa 1996), the environment is recognised as a primary interest to be protected. This is based on guiding principles which recognises the basic human needs of present and future generations, the need to protect resources, and the need to promote social and economic development through the use of water (Republic of South Africa 1996). At the World Summit 2002, the need to address the risk of loss of biodiversity was highlighted and areas were identified as having a direct link and significant impact on the environment. These include water and sanitation, energy, agriculture and food security, health, and biodiversity and sustainable ecosystem management (Southey *et al.* 2002).

As a step towards sustainable development, the Act requires that a national water resource strategy be developed on a progressive basis. The Department of Water Affairs and Forestry introduced the Integrated Catchment Management approach (ICM), which provides for the management of water within the geographic unit of a river basin or catchment, taking into consideration the impact of the land on the water in the catchment. The ICM is thus *a management approach, which recognises the need to integrate all environmental, economic and social issues within the river basin*. It is a process that allows for communities and governments to work together to develop a plan for their own catchment (Republic of South Africa 1996). This process allows working across political jurisdictions to manage water resources wisely on a catchment basis.

Water resources are one of the critical areas that require attention in the transition to sustainability. Empowerment is achieved through the establishment of catchment agencies and forums. This is one of the important challenging innovations of the Act. Agencies may be created either on the initiative of communities or stakeholders in a water management area, or by the Minister on his own initiative (O' Riordan *et al.* 2000). The function of agencies includes the monitoring of water use, the development

and the operation and alteration of water works. In fulfilling these functions, the agencies are required to promote participation actively. The aim of establishing water resource management institutions is to enable the public to participate in administering the water resources within its water management area (Republic of South Africa 1996).

In the present case study, participation is enhanced by means of water-user forums. These are non-statutory bodies consisting of community representatives who wish to undertake particular water related activities as a collective group, i.e. they enter into partnerships to manage their water resources. As stated earlier, environmental policy in many countries, including South Africa, seeks to involve communities in environmental decision-making through partnerships. It also provides a greater responsibility to the Local Authorities to formulate partnerships with the communities and empower them for reasonable decision-making.

2.9 Conclusion

In summary, sustainable development is a challenge for people and planners across the globe rather than an isolated problem. The LA 21 principles are an essential element in achieving sustainable development. Involving people in environmental decisions that affect them might help develop a larger population of socially responsible citizens. In order to achieve sustainable development, there is a need to use local participation as a tool, a scenario which is reaffirmed by the World Summit 2002. The World Summit 2002 emphasised the principles of LA 21 and identified partnerships as a potential tool in achieving sustainable development at local level to ensure capacity building and attitudinal change.

With the growth in population and environmental problems, the need for environmental education has increased. An understanding of the multi-dimensional problems of depleting resources is vital to the communities. Awareness and participating in local environmental issues may help people to understand their attitudes towards each other and their biophysical, and sociological environment. This may further assist the community in developing local programmes to achieve sustainable development.

CHAPTER 3

BACKGROUND TO THE STUDY AREA

3.1 Introduction

This chapter describes the location of the study area, the biophysical and socio-economic characteristics, and the problems associated with the stream. It goes on to examine the political history of KwaMashu and the origins of the partnerships represented in the case studies. The study area falls within section K and C of Ward 41, with section C being associated with the KDI and section K being associated with the KDA partnership. Much information about the study area is drawn from the personal experience of having grown up KwaMashu Township and further data was collected during the course of this research.

3.2 Description of the study area

Townships, in Durban, were developed with the aim of eradicating crowded shack areas that were close to the city centre during the implementation of the policy of separate development. The influx of Indians and African workers into Durban, as a centre of economic growth, produced deep anxieties about the perceived breakdown of social order. An area known as Cato Manor became the major settlement for African families in the early 1930's. The Africans were, during this period, prohibited from owning land or building homes in urban areas (Cato Manor Development Projects undated).

The greatest fear of the central government was that Cato Manor, only four kilometres from the centre of Durban, would change the identity of the city, as the ambiguity of industrial modernity became embodied in racial spaces. In 1957 the central government instructed the municipality to begin constructing a new housing scheme for Africans (Cato Manor Development Projects undated). KwaMashu Township was developed as a relocation site for the communities that were to be moved from Cato Manor. Townships are urban residential areas developed under South African apartheid laws as a settlement for African families who were granted special permits to live there instead of in their rural areas. The name KwaMashu was derived from the name Sir Marshall

Campbell, the sugar-cane magnate. The Zulus reduced Marshall to “mashu” as they found the name difficult to pronounce, and this led to the township being called KwaMashu. By 1959, attempts were made to move people from the informal settlement at Cato Manor to KwaMashu. This was met with stiff resistance and tensions rose in Cato Manor.

KwaMashu Township, 25 km North of Durban, has a long history of struggle and violence directed against political oppression, as the community sought political, economic and social freedom. KwaMashu is made up of 14 sections and informal settlements namely, Richmond Farm, Bester, Lindelani and Siyanda, on its borders (Refer Figure 1). KwaMashu has undergone vast changes since its establishment in terms of infrastructure and local government structure. It is the second biggest township in the Durban Metro area. KwaMashu was previously under the control of the North Central Local Council. Recently the Durban Metro changed its political structure from mutually dependent council areas, to the unified political, administrative, spatial and economic structure of the Unicity that incorporates all these council areas (CSIR 1999). KwaMashu is currently under the jurisdiction of Durban Metro Council, currently known as eThekweni Municipality. This unicity structure is believed to be the type of local control that will encourage interaction between local government authorities and the local communities.

The stream used in the case study is a natural stream, which was canalised, and it appears that initially most of KwaMashu Township was built on wetlands. In order to limit the parameters and include greater detail, the study concentrated on two sections, namely, section K and section C (Refer Figure 1). Since the late 1980s, several projects which involve the community who live in close proximity to the stream, have been initiated. With an increase in the awareness of the community regarding environmental degradation, more recently, a series of projects has focused on stream management and the effect of stream pollution on the local people. In most of these projects, partnerships were developed as a way of involving people in environmental decision-making.

3.3 Location of the study area

KwaMashu is located 25 km in the North Central Council of the Durban Metropolitan Area (Refer Figure 1) between $29^{\circ} 45' 00''$ South and $30^{\circ} 59' 00''$ East. Durban is in the process of centralising its government structure and extending its boundaries to include the previously disadvantaged rural areas, and these will form part of the Unicity.

The stream, in KwaMashu, runs from the informal settlement of Richmond Farm to KwaMashu K-section through G, F, and E-sections and later joins Phoenix canal (Refer Figure 1). The stream originates in the south-west and runs through the south to the east of KwaMashu. From the original starting point, the stream breaks into two sections, one that goes northwards and the other which goes in a southerly direction. In this study, the focus is on the part that runs through southern KwaMashu.

3.4 The physical characteristics of the stream

Historically there were a variety of vegetation communities present in the riparian zone and in the catchment area. The stream traversing KwaMashu was heavily modified to deal with the problem of flooding through canalisation. Land use also encouraged the modification of the stream since there were policies preventing people from utilising and inhibiting the floodplain.

The underlying rock types, namely arenite, shale and tillite, are present in KwaMashu area as a whole and the stream crosses the shale rock type (Refer Figure 7). The vegetation types found in the area are reeds and bushland. The dominant plant types along the stream are reeds, tall grass and marsh vegetation (Refer Figure 7). The invasive species that are found along the catchment area are *Lantana camara* (also known as tick berry, or 'uBukhwebezane' in Zulu) and *Cassia didymobotrya* (also called peanut-butter cassia, or 'Sanliva' in Zulu) (Caldwell 1992). The *Cassia didymobotrya* is common in disturbed areas, preferring sheltered moist situations, whereas the tick berry is capable of invading shallow areas of moist water bodies (Caldwell 1992). The *Lantana camara* requires adequate sunlight and dies back in water containing a high percentage of silt or polluting particles. During a storm, rolled mats of the plant can cause water to dam up, resulting in flooding. Dense mats interfere

with recreational activities and provide breeding places for mosquitoes and bilharzias carrying snails (this process is also called eutrophication, Refer Section 3.5). These snails are able to infect people bathing in the stream (through blood fluke). The bilharzia carrying microbes burrow through skin and eventually damage the liver, spleen and bladder.

Reeds have also grown in the water channel area which then becomes a health and environmental hazard to residences as the reeds disturb the flow of water and cause flooding. Because reeds form tall and dense stands, this encourages crime and creates an unsafe condition for the residents. It becomes easy for robbers to hide in the reed stands when someone is approaching and they then rob the person. Even stripped cars have been removed from the stream.

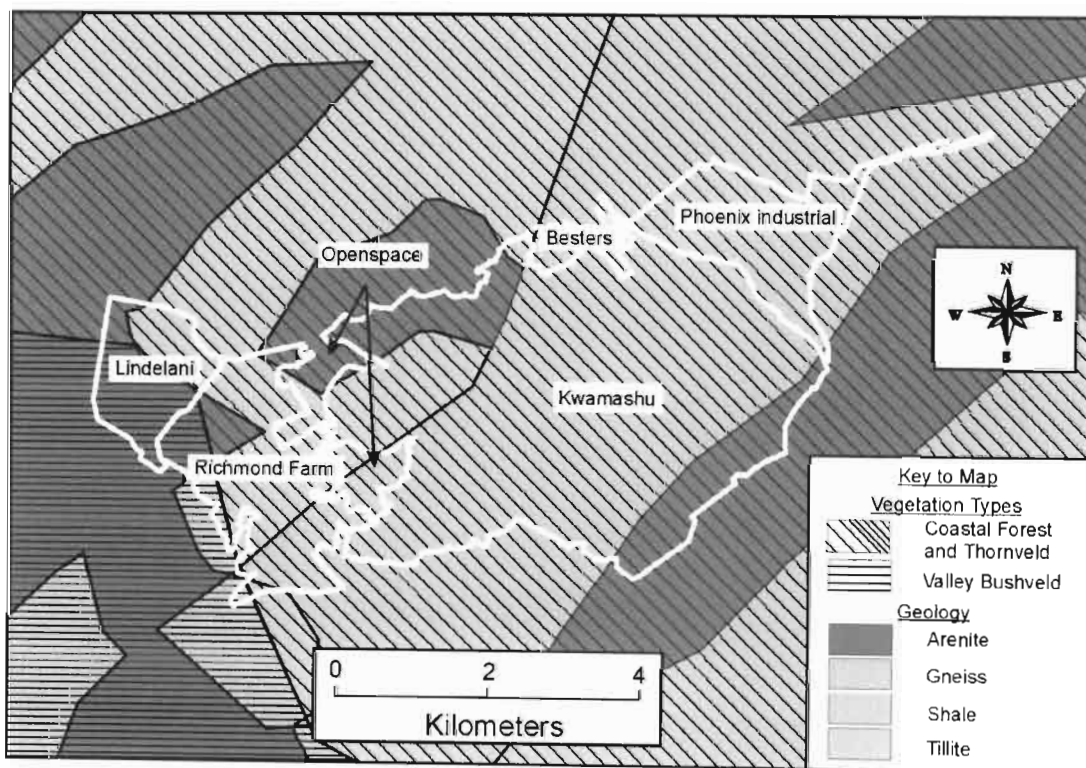


Figure 7. Geology and vegetation map of Kwamashu
(SA Explorer 2002)

3.5 Hydrology

Extended urbanisation in the watershed area results in sedimentation and the presence of excessive plant nutrients (Nebel and Wright 1996) which leads to eutrophication of the stream. The eutrophication process is also caused by the release of polluting particles by plants, and the presence of untreated or partially treated domestic sewage which contaminates the water (Nebel and Wright 1996). Humans add excessive amounts of plant nutrients (primarily phosphorus, nitrogen, and carbon) to streams and lakes in various ways, as, for example, through runoff from agricultural fields, urban lawns, and golf courses. The excessive nutrients in the waterways result in the growth of bacteria, the depletion of dissolved oxygen and the suffocation of sensitive organisms. The catchment in KwaMashu has changed because of building taking place, vegetables being grown along the stream, and the lack of control of alien vegetation, which has also led to eutrophication.

The fact that reeds form dense stands and the effect of alien vegetation, agricultural activities and other contaminants on the stream, results in the slow movement of water. The slower the water moves, the greater the mosquito problem, as mosquitoes like to lay their larvae where there is stagnant water. This not only results in environmentally negative impacts, but also leads to health hazards. Although the risk of malaria fever is low in KwaMashu, KwaZulu Natal recently reported the highest number of cholera cases in South Africa (National Department of Health 2001) and cholera is worse in slow-moving water. The community is exposed to these health hazards associated with the stream, and children run a high risk of contracting bilharzia and cholera because they swim in the stream.

There is no existing formal fresh-water quality-monitoring and management programme to assess the environmental health of the stream. Discharges from informal settlements up-stream contribute to the increase run-off in contaminants, which result in the stream being heavily polluted. Large volumes of urban litter, including plastic, have been identified during the field observations conducted for this study. The blockage of the stream encourages the breeding of bacteria and mosquitoes.

3.6 Infrastructural development

As mentioned in section 3.1, the researcher has lived in the area and much of information given in this section is based on first-hand experience as well as from what was gleaned while conducting the study. Most of the existing infrastructure in KwaMashu has fallen into a state of disrepair; as is evident in the shops and government buildings. There is one shopping complex, which has a few shops and is considered very unimpressive compared to those in neighbouring areas. Originally in KwaMashu, each section had a retail shop, sometimes with a butchery and a bottle store as well. These facilities were run and controlled by local businessmen. The shops ranged from retail shops to supermarkets. There were informal traders who sold fruit and vegetables on a small scale. Most household goods were easily attainable in the area.

Most of these shops were destroyed during the political uprising in 1985. The shops were burned and looting by community members occurred. Spaza shops and taverns came into being after this event as a substitute for the shops that were destroyed. Because spaza shops are run from home, community members, suspicious of the hygienic condition of these shops, resorted to using city supermarkets for purchasing their main household goods. One bakery continued to operate, but it closed down two years ago owing to continuous robbery and hijacking in the area. Consequently, a number of people who were employed at the bakery, including the skilled personnel, lost their jobs. The small development business area, sponsored by the KFC (KwaZulu Finance and Investment Corporation), is underutilized because of high rentals, and some of the shops/workshops have closed down because lease payments were not met.

There are three Health Clinics in KwaMashu, namely the Children's Clinic, the Chest Clinic (specializing in tuberculosis) and the Polyclinic (specializing in outpatients). For major ailments, the community members have to utilize hospitals in neighbouring areas, and this sometimes has transport implications. Most of the sections in KwaMashu have one high school, a primary and a junior primary school. These are mainly public schools and are easily accessible to the community. The first community library, called Tholulwazi, was opened in 1998 and located in the southeast of KwaMashu (on the periphery).

The main transport services used by the community is in the form of trains, municipal buses and the privately owned taxis/minibuses, with rail transport being the cheapest. The private taxi industry is controlled by local businessmen and creates employment for some of the locals who become drivers or drivers' assistants. Usually the drivers' assistants are under-age boys who should be attending school, which is an unsatisfactory arrangement. However, the level of crime in the form of robberies is high in rail transport compared to buses and taxis. Some people have to walk long distances through areas which are unsafe. The absence of lighting in many streets in the township exacerbates the potential exposure to crime. There is one main soccer stadium and one tennis court (which has recently been revamped), a contemporary indoor sports centre and a few sports grounds. The location of the indoor sports centre makes it difficult for the community to access it after hours.

Open spaces in the townships are often used for dumping waste and litter and thus have not been created with safety in mind. In KwaMashu, for example, the houses surrounding such spaces often face away from them, making passive surveillance difficult. Also, the lack of a physical link between houses and open spaces discourages residents from taking responsibility for the maintenance of these areas. Given the undulating topography of the area, opportunities for general surveillance are further reduced.

Plate 1. Open area in KwaMashu K Section



3.7 Key features of Ward 41

The partnerships developed in KwaMashu both occurred in Ward 41, i.e. both section K and section C falls within Ward 41. The profile of this ward is discussed below:

The straight-line distance from the mid-point of the ward to the Durban Central Business District (CBD) is approximately 13km. It is 284.7855h in extent. KwaMashu shopping centre is the closest commercial centre, but the most popular centre is Umhlanga Gateway (which is 9km away). Ward 41 has a total population of 19 954 people with 3 465 households, 9 624 are males and 10 323 are females, 71 % being above 20 years of age. The average number of people per household is 5.73. In relation to their educational level, 33.53 % have completed grade 10 and higher (Urban Strategy 2000).

The total number of potential income earners is 7895 of which 21% are employed and 20% are seeking work. The average income per household per annum is R 19 937 (Urban Strategy 2000). A total of 59% of the population from the Ward earn no income at all, and these are predominantly the youth.

The houses in KwaMashu are built with bricks, ranging from two to four-roomed houses. Extension of houses is done privately. The Polyclinic is approximately 2 km and the library is 4 km from the Ward. The main and internal roads are tarred, with most of the internal roads having recently been reconstructed. Storm water drains were installed at about the same time. The following is a breakdown of facilities in the area (Urban Strategy 2000)

Table 2: Basic household facilities provided by Municipality

WARD 41			
Household Services	Serviced	Not serviced	% Not Serviced
Water (piped in dwelling)	1976	1498	
Sanitation (flush toilet)	3334	131	4
Electricity	2984	481	14
Refuse Disposal	3361	104	3
Telephone (Private)	1491	2046	59

Source: Urban Strategy 2000

3.8 Waste generated

An amount of 6898 tons of waste is generated in the area (Urban Strategy, 2000). A local private contractor collects this weekly. Households are provided with black plastic bags (for general/household waste), which are collected by the contractor on certain days for each section. Garden refuse is also collected weekly on certain days. However, a high percentage of the people in this area are not aware of this service. The waste (including building rubble, and other general waste) usually ends up in open spaces and in the stream. There currently exists a separation and recycling of waste, but on a minimal scale. The waste dumped along the street corners, in open spaces, and in the stream, has a pronounced negative impact on the aesthetic appeal of Ward 41. The area has experienced a high rise in environmental problems and this has increased pressure on the communities to develop strategies for dealing with problems that have arisen.

3.9 Political diversity in KwaMashu Township

Initially, the political organization that dominated KwaZulu Natal in the early 1980s was the Inkatha Freedom Party (Makhathini 1999). There have recently been changes in the political structure of the area as a result of the community becoming more politically aware. New influences have surfaced and gained popularity with the youth, e.g. the United Democratic Front (UDF). As Ntombela (Refer to Appendix 3) states that the attack on UDF leaders and the bombing of their homes at Umlazi in 1985 saw the emergence of violence in KwaMashu Township.

At that time there was a high level of underground operations by political activists who were against the ruling government. The killings of UDF leaders stirred-up youth in several townships (including KwaMashu) in the Durban area, and there was a massive protest, which included the burning of shops and houses. Open fighting for political control between the UDF and IFP followers resulted in killings, so that a number of people fled their homes and sought shelter in other areas. This fighting was extremely high in K-section compared to other sections of KwaMashu.

As indicated earlier, there are informal settlements on the outskirts of KwaMashu Township, namely Lindelani, Richmond Farm, Bester and Siyanda (Refer Figure 1). This research included only two informal settlements, those of Richmond Farm and Lindelani. This is because KwaMashu K-section is geographically located closer to Lindelani and Richmond Farm, while Siyanda and Bester are located far from the stream. Moreover, Siyanda was still developing during the political violence discussed above, and no information was found to suggest that the informal settlement at Bester was linked in any way to the political violence which occurred in KwaMashu K-section. The settlements at Lindelani and Richmond Farm contributed to the violence in KwaMashu, especially in K-section, as both were IFP controlled areas, while KwaMashu as a whole was a UDF controlled area.

With the political violence becoming intense, the gangster groups also developed. In 1989 a gang called Amasinyora fueled the violence in K-section. Initially, Amasinyora were not a politically aligned group, but later associated themselves with the IFP. The mission of Amasinyora was to destabilize and destroy the community, and their aim was to wipeout all non-IFP followers. The fighting in K-section was between the Amasinyora and the UDF members, and this later spilled to Richmond Farm when some people fled to seek refuge. Eventually, K-section became an area to avoid and there was high political tension in the township.

Towards the end of this period, the UDF adopted a campaign to make the townships ungovernable. Educational institutions and trade unions became key sites of revolutionary activity. The attack on the community also spread to the schools, since the youth were in the front line of the struggle. School boycotts and strikes were transformed into scenes of violent conflict and bloodletting. This resulted in a number of schools being burned down and learners dropping out of school in fear of their lives. There was a great deal of protest by learners, which led to disruptions in the learning programme and the year-end results were poor.

3.10 The development of partnerships in KwaMashu

As previously pointed out, there are a number of community-based organizations in KwaMashu which have developed over the past 15 years. Most of these (such as the Simunye Voluntary Group) currently focus on community support services such as helping those with TB and other diseases to get the advice and nutritious food they need. The study focuses on the KwaMashu Development Initiatives (KDI) and the KwaMashu Development Association (KDA), because of their involvement in environmental partnerships. Three problems associated with the stream, and which have motivated the community to develop and participate in environmental partnerships, were identified during the course of this study. These include flooding, eutrophication and crime, which are all attributed to stream degradation.

3.10.1 The KwaMashu Development Association

KwaMashu Development Association (KDA) is a community-based organization (CBOs) developed in 1989. Originating in KwaMashu K-section, its aim was to assist those who were affected by the political violence in the area through community development projects. The association has been engaged in a number of activities for empowering the local people. These include sewing, brick making, adopt-a-spot, stream cleaning and bank re-stabilization to prevent soil erosion.

The KDA is the first group that entered into a partnership with business organizations, which provided funding for the project. Apart from raising money, they maintained the catchment area and it has continued to be managed by a group of women practising subsistence gardening.

3.10.2 The KwaMashu Development Initiative

The KwaMashu Development Initiative (KDI) is a community-based organization (CBOs) developed in 1998. The KDI operates from KwaMashu C-section (an area called the Island), and its main activities involve building the capacity of the community. The KDI has been involved in crime prevention projects, through the development of a Community Policing Forum, and has devised a stream and open area cleaning project. The KDI is the second community organization in KwaMashu to form

an environmental partnership with businesses. They concentrated on involving communities in environmental management and decision-making. Their vision was influenced by the efforts of the Keep Durban Beautiful Association (KDBA) to bring awareness to the community. Since the inception of the partnership, a committee has been formed which manages all the projects of the association.

3.10.3 The Keep Durban Beautiful Association

The Keep Durban Beautiful Association (KDBA) is a non-profit community-based educational organization concerned with improving waste management by communities. The association is a partnership between the private and public sectors (eThekweni Municipality), working closely with Durban Solid Waste. KDBA conducts a number of educational and awareness programmes for communities which include verge and pavement management, adopt-a-spot, recycling, and cleaning of open spaces, parks and streams. These programmes are implemented through the development of partnerships with the communities.

The long-term aim of the association is to ensure that in each community there are:

- ✓ suitable and acceptable regulations to govern waste management;
- ✓ that these regulations are enforced;
- ✓ that facilities and technology for waste handling are adequate and appropriate; and
- ✓ that members of the community are, through participation, educated to dispose of their waste correctly

(Source: KDBA brochure)

In order to reach out to all sectors of the community, the KDBA has representatives called community development workers (CDW). The CDW's role is to create awareness in the community about the important benefits of a clean and healthy environment, to provide information on waste management facilities available in the area, and to encourage every individual in the community to accept responsibility for a clean environment.

The KDBA, after being approached by the KDI, formed an environmental partnership, and their main role was to bring awareness to the community regarding waste management. The KDBA, through CDW, conducted a doorstep environmental programme, presentations and formed an information umbrella.

Plate 2(a):

*KDBA's CDW addressing the community
up*



Plate 2(b)

Adopt-a-verge project before a clean



3.10 Conclusion

The level of unemployment in this area is high, with the employed having low-level incomes. This chapter has examined the factors associated with the stream that have influenced the development of environmental partnerships in the local community namely, flooding, eutrophication and crime. Two partnerships were developed to address the problems of the degraded small stream.

This chapter has tried to provide insight into the workings of the area, and about the community. It attempted to highlight the rationale behind the community partnership endeavours. The comparative effectiveness of these partnerships in achieving their goal of rehabilitating the stream will be given in the analysis chapter.

CHAPTER 4

METHODOLOGY

4.1 Introduction

One of the critical things when conducting a research project is deciding how to formulate a rigorous strategy for investigating social phenomena and how it can be implemented. As Robinson (1998) notes, the researcher must select methodology that will appropriately inform the collection and analysis of data. Research methodology is concerned with how knowledge is attained and how to ensure that the research goal is reached. It provides researchers with different possibilities for knowing the social settings that they describe and analyse. It is a framework that provides guidelines about how the research was done within the context of a particular paradigm (De Groot 1969). This chapter commences with philosophical perspectives of research design or methodological approaches. It provides an explanation as to why a qualitative approach was employed in the study. It further examines considerations associated with physical components of this research.

The preliminary survey involved visiting the areas under the jurisdiction of the two partnerships and informally gathering relevant information, as well as identifying key informants in both the community and the local authority to formally interview. The key informants included local authority representatives and community members. During this survey it was established that the total membership of the KDA and the KDI was 39 and 58 respectively. Based on Sarantakos (1993) recommendation that a 20% sample adequately reflects the attitudes of a population, the decision was made to interview 20% of the respective membership. People were selected using a purposive sampling procedure. A structured questionnaire with both open and closed questions was designed and administered in face-to-face interviews. Table 3 provides a clear overview of the approaches used in this study.

Table 3. Types of data collection approaches applied in the study

TYPE OF DATA COLLECTION	APPARATUS	NUMBER OF PEOPLE INTERVIEWED	LEVEL OF THE STUDY
Unstructured interviews – Key informants	Note pad and list of questions	8	Key informants identified
Semi-structured interview	Questionnaire with open and closed-ended questions and a note pad	22	Data collection process for the study
Field observation (unstructured non-participant)	Note pad and a camera	0	Initial phase of the study

A field observation was conducted to determine which activities along the stream improve or negatively impact on the environment. The information gathered from interviews is discussed in detail in this chapter. Information gathered within the theoretical framework was used to evaluate and understand how partnerships were developed by the communities. A notepad was used to record the additional responses of the respondents for later translation.

The focus of the study is to examine how people develop partnerships, with the accompanying processes and its consequences. Long and Arnold (1995) state that environmental partnerships are hard to evaluate because the goals of environmental quality and resource conservation are themselves so difficult to measure. In addition, it is difficult to causally link partnership activities to environmental changes and determine the durability of environmental improvements. Long and Arnold (1995) suggest that partnerships can be evaluated on at least three levels:

- *Environmental goals:* Did the project accomplish its objectives to improve a specific element of environmental quality? Did it increase the efficiency and effectiveness, or equity of achieving this level of environmental quality?
- *Indirect benefits:* Did the project produce benefits not directly related to the central environmental issue?

- *Process management*: How well did the process of partnering work?

These criteria have informed the research design, as they suggested key research directions.

Research involves the application of a variety of standardized methods and techniques in the pursuit of valid knowledge (De Groot 1969). Methods are particular activities and tools used to achieve research results and to generate data and analysis. Polkinghorne (1993) notes that methods include various experimental designs, sampling procedures, measuring instruments, and the statistical treatment of data. These are selected on the basis of criteria related to the major elements of the methodology in which they are embedded (Sarantakos 1993). This chapter introduces the methods and techniques of social research used in this study, and their methodological frameworks in their diverse nature, and demonstrates their purpose, relevance and effectiveness. This is a qualitative research project.

Different approaches were applied in this study to ensure validity of data. The researcher refrained from providing clues for the questions to prevent subjectivity. Clarity was provided only when required and the responses of the interviewees were recorded as they were.

4.2 Philosophical perspectives

All research (whether qualitative or quantitative) is based on some underlying assumptions about what constitutes valid research and which research methods are appropriate. The philosophy of the research informs and guides the methodological process, i.e. data gathering, analysis and interpretation (Phillips 1987). In order to conduct and evaluate qualitative research, it is therefore important to understand what these assumptions are.

The most pertinent philosophical assumptions are those which relate to the underlying epistemology which guides the research (Myers 1997). Epistemology refers to the assumptions about knowledge and how it can be attained. The positivist philosophy has been the guiding philosophical paradigm during modern times. It provides a

philosophical and logical foundation for empiricism as the ground of knowledge (Polkinghorne 1993). Philosophers believed that through such scientific approaches a new order of society could be developed that would alleviate social problems.

One of the implications arising from this approach is that reality is independent, external, and objective to the observer. In this study a case-study approach has been adopted. The case-study approach generally attempts to provide an understanding of the phenomena through meanings that people assign to them. Statistical and qualitative approaches have been used to provide further insight and meaning regarding the activities of the people in KwaMashu. These methods are also aimed at producing a concept of the context within which information was gathered (Myers 1997).

4.3 Constructing local knowledge

This research aims to provide an outline of the social life of the interviewees and discover how these people construct meaning within their natural settings. Sayer (1984) notes that knowledge is gained through activity, both in attempting to change our environment and through interaction with other people, using shared resources, in particular a common language. Pickels (1988) adds that constructing social knowledge is as much a process of interpretation as of understanding.

According to Eyles and Smith (1988), the use of qualitative methods may provide some of the most authentic representations of public perceptions. Qualitative methods generally operate on the basis that the 'natural order of reality' is seen, conceived and understood in different ways by different groups of individuals (Silverman 1993). This implies that interpretative methods are required which may give special attention to the knowledge and understanding of individuals and groups.

This research broadly seeks to identify meanings, not only by using standard scientific constructs, but also by using words and images as meanings, with the aim of understanding and explaining the nature of reality. As Eyles and Smith (1988) state, the task of research is to uncover the nature of the social world through an understanding of how people act in it and give meaning to their own lives. According to Robinson

(1998) these descriptions can take several forms depending on the aim of the research. They may be used in conjunction with statistical surveys and quantitative analysis as complementary methods for seeking an understanding of society.

4.4 Research methods

A number of research approaches were applied in this study. These are detailed below.

4.4.1 Qualitative and quantitative approaches

Qualitative and quantitative approaches represent distinctive approaches to social research. These distinctions exist in terms of numerical (quantitative) and non-numerical data (qualitative). Each, however, belongs to a different paradigm. A quantitative approach is typically associated with the process of enumerative induction, whereas in qualitative research, it is the concepts of categories that are said to matter (Branner 1992).

The quantitative approach makes observations more explicit and makes it easier to summarise data. It opens up the possibility of statistical analysis, ranging from simple averages to complex formulas and mathematical modes (Sullivan 2001). Sayer (1984) refers to two types of research design, namely, the intensive and extensive types. Extensive research involves descriptive, inferential statistics and numerical analysis. These are oriented towards providing descriptive generalizations. Intensive research, which is inductive of nature, uses mainly qualitative methods such as structural and causal analysis, participation observation and informal and interactive interviews (Sayer 1984). This study employs the qualitative approach with the purpose of attaining a depth of insight into and understanding of the community regarding partnerships. Silverman (1993) notes that a qualitative approach is an empirical, socially located phenomenon, defined by its own history. The case study approach, for this research, is deemed suitable, as it allows for intensive examination of an issue in a particular setting.

4.4.2 Qualitative methods

Most qualitative research prefers to describe and illuminate the meaningful social world. Qualitative research utilizes an open-ended approach, i.e. interviewing, to explore and

understand the attitudes, opinions, feelings and behaviour of individuals or groups. It is best used for intensive information, compared to quantitative surveys which are an outstanding medium for gathering more widely ranging data. The qualitative method is best suited to discovering underlying motivations, feelings, values, attitudes and perceptions. It allows for changing areas of exploration as the study progresses.

Several qualitative techniques namely: observations, informal conversations, a case-study approach, and face-to-face interviews using a questionnaire, were used in this study to collect data. As Eyles and Smith (1988) point out, one way that the researcher can try to get the grips with the complexity of the social world is by adopting a multiple research strategy. These qualitative techniques are essentially descriptions of people's representations and constructions of what is occurring in their world.

i) Interviews

Interviewing is a form of questioning characterized by the fact that it employs verbal questioning as its principal technique of data collection (Sarantakos 1993). The initial planning for the interview involves deciding on the most appropriate format for the interview, including its location, duration and structure. Creswell (1998) points out that interviews vary in applying three different approaches, namely telephone, focus groups and one-on-one interviews.

Telephone interviews provide the best source of information when the researcher does not have access to individuals. However, this does not facilitate direct communication between the researcher and the interviewee. Sarantakos (1993) notes that quantitative researchers predominantly employ telephonic interviews. The focus group has advantages when interaction among interviewees will in all probability yield the best information. With the focus group approach, there is a possibility of certain interviewees dominating the discussion and others not having enough chance to express their ideas. In this study, a one-on-one/face-to-face approach has been used, as it encourages the development of relationships between the researcher and the interviewee. It also allows the researcher to observe physical responses to questions, and to address the questions to one respondent at a time. This was a self-administered

interview, whereby respondents were provided with a form containing a list of questions with relevant instructions, and they then entered appropriate answers. The researcher provided assistance in terms of filling in the form and reading out questions to the respondents with literacy problems.

Robinson (1998) explains that interviews may take various forms, from highly structured to a more free-form method. Structured interviews attempt to utilize a replication approach which allows comparability between responses. In this study, two interviewing techniques were used namely, a semi-structured interview which allowed for further probing followed by a self-administered questionnaire. In the initial phase of the study, conversations took place with different local authority and community-based representatives of organizations in KwaMashu, applying the unstructured interview method.

Structured interviews are associated with survey research, and are based on a strict procedure and a highly structured questionnaire. Each respondent is asked the same question in the same way so that any differences between answers are held to be real ones not the result of the interview situation itself. This method facilitates the comparing of responses. It relies upon a uniform structure, while a calculated number of people are interviewed so that they are representative of the population for the purpose of generalisation (May 1997). However this type of interview was not applied in this study as it was found to be unsuitable.

Unstructured interviews have no strict procedure to be followed, i.e. there is no restriction in the wording of questions, the order of questions or the interview schedule (Sarantakos 1993). Robinson (1998) asserts that this approach enables the interview to be tailored to particular individuals and ensures a high degree of flexibility. The interviewer engages in a conversation with the interviewee without a list of preset questions, but the conversation has to be directed towards particular aspects of the research. May (1997) notes that this provides qualitative depth by allowing interviewees to talk about the subject in terms of their own frames of reference.

Several unstructured interviews were conducted in this study as a preliminary assessment to focus the study on required issues and settings. Questions were formulated as and when required and neutral probing was used. These in-depth interviews provided key issues to be included in the questionnaire. Robinson (1998) states that the best device for recording information during conversation is the use of a tape recorder, as it allows for greater accuracy and ease of analysis. The presence of a tape recorder, on the other hand, may inhibit people and prevent them from expressing their true feelings. It is for the reason that notes were taken during interviews for later analysis.

Semi-structured interviews contain an element of both the above types of interviews and are closer to one or the other, depending on the choice of the researcher. May (1997) notes that questions are normally specified, but the interviewer is freer to probe beyond the answers in a manner which could appear prejudicial to the aims of standardisation and comparability. A semi-structured interview approach has been adopted in this study, using a questionnaire with open and closed-ended questions, with the open questions showing no response category. A face-to-face interview approach was adopted whereby one respondent was interviewed at a time. As May (1997) points out that these types of approaches allow people to answer more on their own terms, than the standardised interview permits.

ii) Preliminary interviews

Apart from the literature survey referred to earlier, unstructured interviews with relevant key stakeholders, namely local communities, community leaders, local representatives and local authority officials (including the Drainage and Coastal Engineering Department) were conducted. These interviews took place for several reasons. Firstly they were designed to develop a database of the stakeholders to be contacted (or interviewed) for the survey aspect of the study. Secondly, they facilitated gaining access to the study area, and allowed for the development of a relationship of trust with community leaders and officials. Thirdly, they identified current activities in the area relevant to the study.

From the information collected in this informal manner, it became possible to construct a more formal questionnaire that would assist in data collection. The type of information that the researcher was interested in, was that which would promote an understanding regarding the nature of persistence of partnerships as an activity. The information would identify the stakeholders and pinpoint the nature of the activities that the groups in the partnership were involved in, it would reveal the costs and the availability of funding and lastly, indicate whether there was a possibility that partnerships would continue.

During the first stages of this research, a site visit was carried out to set the boundaries of the study area and to identify the parameters for the data collection. This involved identifying the informants and people engaged in activities along the stream. The study was confined to areas where communities experienced environmental hazards and where environmental partnerships and community groups were engaged in managing the stream.

iii) Observations

An observation is an open research design, which increases the possibility of the researcher being able to identify unexpected issues. The observation process has been deemed necessary for this study as Palys (1997) asserts that some research problems may require data which can only be collected through observation. Sarantakos (1993) defines observation as a method of data collection that employs a sense of vision as its main source. It may be used on its own or jointly with other techniques such as intensive interviewing, documentary studies or case studies.

Sarantakos (1993) notes that observations may be in different forms depending on the choice of the researcher. Observations differ from each other in terms of the extent of the participation of the observer in the environment, the setting in which they occur, and in the manner in which they are organised. Robinson (1998) adds that participant observation requires spending a considerable amount of time in the environment of the people being observed. It entails a closer and more prolonged interaction by the analysts with the group or individuals being studied. In the case of non-participant

observation, the observer is not part of the environment being studied. The observer maintains a clearly defined position that is different from that of the subject. *Structured observations* employs a formal strict procedure with a set of well defined observation categories, whereas *unstructured observations* are loosely organised and the process of observation is left up to the observer to define (Sarantakos 1993).

An unstructured non-participant observation procedure was employed in this research. This type of observation also formed part of the initial assessment of the study which was designed to identify activities that occurred along the stream and to determine their intensity. Visual data relating to these different activities was collected which was aimed at defining the scope of the study and identifying the respondents to be interviewed.

iv) Case-studies

A case study is a research model or design that deals with all aspects of research (Sarantakos 1993). Case studies involve studying individual cases, often in their natural environment, for a long period of time, and employing a number of methods of data collection and analysis. As Huysamen (1994) notes, case studies are directed at understanding the uniqueness of a particular case in all its complexity, but they are also regarded as reflecting a broader context. Case studies are different from other forms of investigation in that a single unit is studied (Yin 1991). They are a form of inquiry within the context of descriptive as well as evaluative and causal studies (Sarantakos 1993).

Case studies are employed in both qualitative and quantitative research. As explained at the beginning of the chapter, two case studies were selected, and included representatives from the two partnerships. The first step involved conducting fieldwork to determine the paradigms of the case studies. This was followed by interviews, which were based on a list of topics drawn up in advance and designed to reflect the study objectives. After the initial assessment, this list was reviewed and finalised in the form of a questionnaire, so that all aspects of the research agenda were covered. Both of

these case studies involved the development of partnerships, although at different times and in different settings.

The process of data gathering started with meetings and initial unstructured interviews with the Councillor, the local authority representative, and the KDBA's community voluntary worker and the KwaMashu Youth Association representative (interviews were held at different times). The purpose of these meetings was to identify the groups that participated in environmental projects involving partnerships. Following on this assessment, two groups were selected, namely the KwaMashu Development Association and the KwaMashu Development Initiatives. Both these groups are community-based organisations and they involve the community in the implementation of projects. In this study, A refers to the KDA partnership and B refers to the KDI partnership.

a) The KwaMashu Development Association (KDA)- Partnership (A)

The KwaMashu Development Association (KDA) is based in KwaMashu K- section. The problems associated with stream blockage, aesthetics and flooding were the drivers in this community-based scheme which set out to devise a strategy for managing the environment. It was obvious that, being the affected party, they needed to develop a plan. The important factor for this group was to involve the community in environmental management issues and to encourage future voluntary initiatives which would continue to maintain the area.

Initial discussions were held with the leaders/representatives of the organisation to inform them about the study and to gather operational information regarding the operational procedures of the organisation. The site was visited in the company of the representative, where the group of women that are affiliated to this organisation practise subsistence gardening. Four women working on site were selected for unstructured observation and interviews. Two of the women had participated in partnerships that were developed by the organisation and continued to manage the area even after the partnerships were dissolved. In total, the gardening group consisted of 15 women and

one man, all above 45 years of age who were otherwise unemployed and who sold vegetables grown in their gardens for a living.

b) The KwaMashu Development Initiative (KDI)- Partnership (B)

The KwaMashu Development Initiative is based in KwaMashu C-section. Houses located along the stream in this area were heavily affected during the heavy rains of December 1999, when a number of properties were damaged. The main driver of the partnership initiative in the area was crime. The community realised that one of the problems that was encouraging crime was poor management of the stream, as the reeds along the catchment would grow dense and tall. The leaders of the organisation encouraged voluntary participation of community members in the partnership.

An initial interview was held with the treasurer/organiser of the organisation in order to become familiar with issues which had led to the involvement of the committee in the partnership. This interview was unstructured with most of the discussion focusing on partnerships and the role of the community. A site visit was conducted accompanied by the representative of the organisation to identify areas that were damaged by the floods and areas earmarked for future projects. Semi-structured face-to-face interviews, using a questionnaire, were conducted with key informants who were selected from the area. The key informants included the representatives of the KDI that had participated in the partnership, community members that were part of the partnership initiative and other community members who had been affected.

4.5 Questionnaire techniques

Surveys are the most commonly used methods of data collection, with information being gathered through questioning in either an oral or written form. In most cases questionnaires are employed as the only method of data collection. Palys (1997) notes that the questionnaire survey is an indispensable tool when primary data is required about people, their behaviour, attitudes and opinions and their awareness of specific issues.

In order to achieve the aim and objectives of this study, it was necessary to conduct standardised interviews with a sample of residents of KwaMashu. Two semi-structured questionnaires were designed, incorporating a mixture of both open and closed-ended questions. Questionnaire A (Refer Appendix 1) was developed for the local community and Questionnaire B (Refer Appendix 2) was designed for the local authorities, in the form of councillors, and local government officials. Questionnaire A focused on the role of the community and partnerships, whereas questionnaire B focused on the roles of the authorities and partnerships.

Questionnaire A consisted of six sections (Refer Appendix 1). The first part entitled “Environmental Perceptions” was made up of mainly closed questions which provided the respondent with a selection of answers from which he/she had to make appropriate choices. Some questions in this section were multiple choice questions or required the respondents to rank issues according to their own values or preferences (Manickam 1999). Each issue was given a numerical value so that respondents were free to choose the most appropriate response to the issues listed in that particular question. Section one of the questionnaire contained six questions. This section was specifically aimed at assessing the understanding of the community regarding environmental matters and their perceptions of them.

Part B entitled “Social Impacts on the River” consisted of closed and open-ended questions. This was aimed at attaining information regarding the river use and its importance to the people as a resource. Part C entitled “Participation /Management of Local Environmental Issues” consisted of open and closed-ended questions. This part focused on individual participation in community issues and decision-making. Respondents were allowed enough space to clarify their views and to elucidate on what they regarded as their responsibilities in terms of participation in community projects.

Part D entitled “Partnerships” consisted of open and closed-ended questions. This focused mainly on partnerships, from the inception period, through the operational phase and included the closure of the proceedings. The respondents were asked whether they understood the concept of partnership and if they were involved during the project

implementation. Part E aimed at attaining more data regarding environmental awareness and perception. Most questions were designed to probe and double-check these later responses against those of the earlier sections.

Questionnaire B had four sections with open and closed-ended questions, but most were of the former type (Refer Appendix 2). Section A involved questions mainly about the perception of the environment, and was aimed at assessing the general attitudes. Section B, entitled “River Management”, had questions which focused on finding out about the involvement of the respondents in the community environmental management issues. The respondents were questioned about LA 21 principles, in order to further determine the extent of their awareness. This section was also aimed at finding whether the local authorities understand their expected roles and responsibilities to the community as outlined in the Local Agenda 21.

Section C entitled “Partnerships” had open and closed-ended questions. This section aimed at assessing the participation of the local authorities in community projects and partnerships, in order to understand how they perceived the issue of engaging in partnerships with the community.

4.6 Sampling method

Sampling usually involves the purposeful selection of research participants, settings, events or documents that will provide the information needed to address the research question. Palys (1997) notes that a survey is generally conducted by sampling from a population rather than by contacting all of its members. A sample is a subset of the population. It is a process of selecting the research units of the target population, which are to be included in the study. In this research, to obtain data that is representative of the whole target population, a small number of units have been studied. The population, in this case, is a total set of all possible observations on measurements or outcomes (Palys 1997).

The target population for this study are individual people participating in the partnerships developed to address environmental problems in KwaMashu. The target

population was identified during the observation process and a purposive sampling approach was used. These individuals were interviewed separately, at different times and in their place of preference. The sampling population consisted of the individuals residing in KwaMashu, focusing on section C and K. Representatives from the KDBA, local authorities and other CBOs were included in the sampling frame. As Palys (1997) notes the population of a study is defined by the geographic boundary and the characteristics of the population. The total number of people consists of 39 from KDA and 58 from KDI. A 20% sampling rule has been applied, as it was assumed that 20% of the individuals located in the areas where there are stream-related environmental problems and who have been involved in partnerships, would reflect the attitudes of the targeted population. As Sarantakos (1993) emphasized, a small number of units of the target population can be studied in order to obtain data that is representative of the whole target population.

4.6.1 Sampling procedure

Robinson (1998) notes that there are two sampling procedures that may be followed in order to draw a sample of the population, and these are random/probability sampling or non-probability sampling. Random/probability sampling provides a high degree of representativeness and high generalisation of results (Sarantakos 1993). It would include simple random selection, or may be in the form of systematic, stratification, proportionate, disproportionate, multi-stage, and probability proportionate-to-size sampling. In this research a non-probability purposive sampling approach has been used. Non-probability purposive sampling implies that a selection of sample members are drawn and assessed according to the judgement of the researcher.

Apart from households that were identified as units of study, the researcher had to select individuals who were relevant to the research topic (those participating in partnerships and those who were involved in activities along the stream). The selection process (of the respondents) depended largely on their availability. Because of time constraints, a strict once off call-back regime was adopted before discarding the contact if there was no response. There were no non-responses.

4.6.2 Data collection procedure

Data was collected so that the perceptions of the community regarding partnerships and the environment, in relation to the stream clean-up, rehabilitation and management could be analysed. The data collection steps of this research project included setting the boundaries for the study, and then collecting information based on observations, interviews, and visual materials available. A protocol for recording information was also established. In April 2001, assessment of a site was undertaken for observation purposes and key stakeholders were identified. The site had to be visited on four different days to allow for additional activities that might not have been identified initially. One month was spent conducting preliminary interviews with the key stakeholders. This was because appointments had to be organized with the offices of the stakeholders, and it was difficult to meet them all in a single day. The interviews, using a questionnaire, were conducted in July 2001, and encompassed a period of two weeks. In total, 22 questionnaires were completed and used to assess the perceptions of the community.

4.6.3 Data sources and gathering

Data gathering strategies used in this study include the following:

- taking notes as an observer;
- conducting unstructured and semi-structured interviews and transcribing them; and
- obtaining relevant documents and photographs of the area.

Both secondary and primary data sources were used for providing the framework of this research project. Secondary data was obtained from reviewing literature and existing documents on the study area. Primary data was collected through interviewing the community and relevant officials, and by means of a survey using a questionnaire.

4.6.4 Data analysis and interpretation

Once the survey was completed, data was coded. Open-ended format questions were categorised. This was done by making a crude listing of the main categories of answers and recording the number of responses within each category. Similar answers were

combined. These responses were then interpreted within the theoretical framework of the study.

A qualitative (or analytic induction) methodology of analysis was applied to the findings in this study. Qualitative research is generally concerned with issues relating to process and meaning. Analysis of qualitative data ranges from simple enumeration and illustrative use to complex analysis requiring specialist expertise and extensive time (Silverman 1993). A great deal of work precedes data analyses when using questionnaires to collect information. This includes data preparation which involves checking or logging the data for accuracy, entering the information on a computer, transforming the data, and developing and documenting a database structure (Silverman 1993).

In this study, the researcher worked through a structured approach to analysing qualitative data, based on an iterative process of interpreting (Strauss 1987), grouping, summarizing, finding patterns, discovering relationships, and developing and testing relationships that emerged. The study has been designed to describe and analyse the emergence, implementation and effectiveness of community partnerships. In defining and analysing the partnerships developed by the community, Long and Arnold's (1995) model was used as a guide. It became necessary to define the features of each partnership, focusing on the roles and characteristics of individuals who participated in the implementation of a project through partnerships. Several factors were taken into account including a historical overview of the area (focusing on political factors), capacity building, and the type of partnership adopted by each group (as defined by Long and Arnold, 1995).

As discussed in chapter 2, two case studies involving partnerships were examined using the qualitative approach, whereby data was coded and interpreted in order to discover social facts and to make available information about the reality of partnerships in KwaMashu. A semi-structured approach to the collection of data facilitated the cataloguing of the actual words of the subjects, which could then be retrieved and interpreted. Responses were coded and similar responses were grouped thematically.

4.7 Conclusion

This chapter has provided motivation as to why the qualitative research approach was considered the best tool in a study of this nature as the focus falls on intensive information analysis rather than a broader view of the subject. Furthermore, a qualitative method is the best research rationale for discovering underlying influences, feelings, values, attitudes and perceptions. It allows for adjusting areas of exploration as the study progresses.

Different data gathering tools were used in this study. An initial observation process, in order to identify naturally occurring data, and preliminary interviews were deemed necessary. As Silverman (1993) notes, it is appropriate to engage in a systematic observation before any interviewing takes place. The use of case studies in this research allowed for an intensive examination of the partnerships involved.

CHAPTER 5

ANALYSIS

5.1 Introduction

The results of the study are presented as follows. Firstly the profiles of both partnerships are discussed to determine their differences. The environmental status of the study area is then examined, with the focus being on the perceptions of the people that were involved in the partnerships. Their understanding of the term environment is considered and their awareness of the facilities and services available as well as their insight into the benefits of the stream to the community is assessed. In terms of LA 21, local authorities are required to develop partnerships with the community to address local environmental problems, as was highlighted at the World Summit 2002. Therefore the role of local authorities in developing partnerships with the community in KwaMashu is examined. The two partnerships are classified in terms of Long and Arnold's (1995) models of environmental partnerships and factors contributing to the success of partnerships are taken into account.

5.2 Profiles of the community-based organisations in KwaMashu

Community based organizations in KwaMashu played a significant role in dealing with community issues even before the new government came into being. As mentioned in chapter 2, there has been a shift in the role of the CBOs from being politically based to a more community-needs focus. The KDI and the KDA partnerships provided useful case studies for exploring the issue of constraints and challenges relating to the development of partnerships in the townships. The case studies were selected to provide a framework for the environmental issues as they were dealt with in the urban townships. Table 4 presents the features of these partnerships:

Table 4. Partnerships key features.

<i>FRAMEWORK OF FEATURES</i>	<i>KDA PARTNERSHIP (PARTNERSHIP A)</i>	<i>KDI PARTNERSHIP (PARTNERSHIP B)</i>
Organization originated	1989	1998
Composition	Executive of 5 39 members	Executive of 3 58 members
Affiliation	Application through the executive committee	Open membership – all members of the community are regarded as members.
Gender of affiliate members	30 males, 9 females	37 males, 21 females
Age of members	Between 30 and 64	Between 21 and 58
Age of members interviewed	> 40	> 40
Reason for the formation of partnership	Sponsorship from donors	Crime
Political domination	ANC	ANC
Focus of partnership	Stream and open areas	Stream and open areas
Character of Leaders	Non-open, politically sensitive	Dynamic
Area where leaders grew up	KwaMashu	KwaMashu
Type of sponsorship	Financial	Resources
Achieved the set objectives of the project	Some	Yes
Environmental education of participants in partnership	None	Yes – an introductory presentation on waste and open space management

5.2.1 KDA partnership

i) Political factors

The KDA was established in 1989 by a group of individuals with the aim of assisting communities who had been the victims of political violence. As mentioned in chapter 3, political violence in this area surfaced in 1985. Even though there are four informal settlements in the area, this research focused on only two. Lindelani and Richmond Farm informal settlements played a significant role in fuelling violence in KwaMashu, especially in K-section because of its geographical location. The violence led to the

collapse of community structures that had been in place and destroyed communication links between the local authorities and the community.

The aim of the KDA was to neutralize the tensions and close the gaps created between the local government and the community, and to bring the community together to deal with social issues that affect them. Issues that were of interest at the time were transport, poor waste management, and housing. The KDA gained a lot of support from community members, specifically in K-section.

ii) Partnership formulation

The KDA partnership was selected as a case study because it had been involved in partnerships with the local authorities, non-governmental organizations (KDBA), and businesses. The Lotto, KZN, through Operation Jump Start Association, donated funds for communities that were previously disadvantaged and marginalized to enable them to engage in self-sustaining projects. KwaMashu is one of the areas where this funding became available for use in the community. The KDA, as an association representing KwaMashu, approached Operation Jump Start and requested funding for a project that would benefit the community of KwaMashu.

Initially, the project aimed at covering all sections in KwaMashu, with K section as a pilot project. The aim was to empower KwaMashu citizens through their involvement in the rehabilitation of streams and catchment areas to prevent soil erosion, as well as to enlist assistance in maintaining parks, open areas, and the stabilization of bridges. The purpose was to improve the social and economic conditions of the communities, as the level of unemployment was high. Operation Jump Start Association agreed to fund the project, and the role of the KDA was to supervise the programme, provide resources in the form of labour and to monitor the funds. Several meetings were held between the sponsors and other stakeholders before work commenced.

The stream, parks and bridges were selected because they were seriously damaged by heavy rains and flooding. This was as a consequence of illegal dumping of waste in open areas and in the stream's catchment. Local government representatives were also

involved in the partnership from its inception/and planning. Their role was to observe and monitor the process.

iii) **Shared resources**

Typically, the resources that the community offers in a community-based environmental partnership, differ from those that businesses and government can offer (Murdock and Sexton 1999). The KDA, as their role prescribed, provided labour, time, values, attitudes and local knowledge to the partnership. Twenty unemployed community members from section K were selected by the KDA to participate in the partnership. These community members gained environmental, social, and economic benefits out of the partnership.

iv) **Capacity building**

When designing community-based projects, it is necessary to understand the characteristics of the community and the capabilities of the organizations which represent them. Many of the organizations representing the community do not have interdisciplinary expertise. To be successful, the community organization needs to mobilize the energy and knowledge of the members, to foster individual growth and to improve quality of life, i.e. each project must be able to capacitate the community or those who have participated.

The project in KwaMashu K section targetted the local people who were unemployed and who had not previously been involved in environmental decision-making. Some participants admitted that their involvement in the partnership allowed them to have a better understanding of the importance of urban environmental management issues. Ngobese (Refer Appendix 3) asserted that:

“the partnership improved our way of thinking about the environment and the local issues. At the same time it enabled me to continue managing a certain portion of the stream catchment through subsistence gardening. Small scale gardening existed prior to the partnership but people were hindered by the fact that the place was poorly managed with huge piles of waste, ranging from animal carcasses to old cars and old furniture”.

Long and Arnold (1995) maintain that increased stakeholder participation offers the opportunity for the group to resolve value differences, set priorities and implement solutions. This study's respondent, Ntombela (Refer Appendix 3), mentioned that,

“through a partnership we were able to create and develop solutions to the community problems. KwaMashu is aesthetically poor as compared to Phoenix and Newlands (the neighbouring areas) but through combined effort we will be able to make our area look like the others”.

The community was involved in improving the local area in the following ways:

- it envisaged a greater responsiveness to community needs;
- it aspired to the creation of income generating activities; and
- it encouraged capacity building and development skills.

5.2.2 The KDI partnership

i) Political factors

The KDI was established in 1998 during the transition to democracy and aimed to provide support to the community by encouraging social responsibility and participation. The main issue of concern in this partnership was crime. Although the time of violence and resistance was over, the rates of unemployment were speedily increasing, with youth leading the number of unemployed people. Crime in the townships is a standard phenomenon, but after the violence subsided the rate of crime increased.

During the struggle era, there was a heavy inflow of illegal weapons and bullets to the country, which were easily available to the youth. At that time, munitions were used for protective purposes. Despite numerous efforts these arms were never reappropriated and this is currently causing a problem in the community. People are being hijacked at gunpoint, killed and robbed and there is a high-level of insecurity in the area. As Ntombela (Refer Appendix 3) noted:

“the floods are a problem to us but the main concern is crime. It is difficult to sell our properties because of flooding and the fact that the crime rates in the townships are high. We no longer feel safe and secure as we used to in the early

1970s. Whatever you own, a group of youngsters can come in and claim it, if you refuse you die. There is a gangster group (criminal group) which have even given itself a named izintandane (the orphans)''.

KwaMashu C-section is well known for its high crime rate. The poor management of the stream resulted in a thick growth of reeds in the riparian zone. This became a hiding place for robbers, where stripped stolen cars were hidden, and dead bodies thrown. The KDI, together with the community, developed a policing forum which patrolling the area regularly.

Besides the problems associated with the reeds already mentioned, their height and thickness prevent an easy flow of water during heavy rains, resulting in overflows and flooding of adjacent homes. In December 1999, after Christmas, there were heavy rains which left a number of families stranded. Because of the blockage of the stream, the bridge crossing the stream was damaged (preventing cars from crossing), people lost their furniture, food, appliances, and the walls of houses cracked. Local authorities and councilors were informed and they visited the area to view the situation. The area was seriously damaged and the community felt that they should have received assistance (in the form of food and clothing) from the local government, as was the custom with areas affected by environmental disaster.

ii) Partnership formulation

The KDI initiated a project with the aim of developing and strengthening the linkages between the community and other relevant stakeholders. The main goal was to empower communities through encouraging participation in local development. The objectives of the project were:

- (a) to reduce the level of crime by controlling the reed growth;
- (b) to involve the communities in cleaning and maintaining the stream and open areas,
- (c) to develop programmes for the open areas that would benefit and improve the socio-economic condition of the community; and
- (d) to instil environmental management through awareness.

Different stakeholders, like the Keep Durban Beautiful Association (KDBA), and businesses and local authorities were approached to enter into a joint venture with the KDI to assist the community to implement the project. No funding was provided. The businesses (donors) that were approached were Coca-Cola and National Sorghum Breweries, which contributed resources to the project, i.e. t-shirts, caps and refreshments. The Parks Board department donated equipment and vehicles for removing waste and the KDBA, through Durban Solid Waste (DSW), contributed protective clothing (gloves) and plastic for removing the waste.

iii) Shared resources

All stakeholders who were involved in the partnership provided resources to achieve the goals set for the projects. This study's respondent, Sibiyi (Refer Appendix 3), stated that the KDI mobilized community members to voluntarily provide their labour and time hoping that it would lead to an acknowledgement of ownership, and also to promote sustainable development. The clean-up of the stream was done on a Sunday. This was to ensure that each interested member participated. The community was aware that there was no financial reward to be received from participating in the project, but only long-term sustainable benefits.

iv) Capacity building

The KDI initially, before the project was implemented, conducted an assessment to identify the sources of waste and the main causes of the stream blockage. It was discovered that there was a high level of illegal dumping in open spaces and in the stream catchment. As observed by Sibiyi (Refer Appendix 3), other community members have a tendency, when cleaning their yards/gardens or when they missed the waste collection truck, to dispose of their waste in the stream catchment and open areas. This is because of a lack of awareness of environmental issues among the community.

To address the problem of illegal dumping and poor management of waste, the KDI approached the KDBA to conduct community environmental education awareness programmes for KwaMashu C-section. The KDBA initially conducted a survey to identify and come to terms with the needs and gaps of understanding in the community.

This entailed visiting each household to explain the importance of waste management, and highlighting the link between the problem of flooding in the area and poor waste management. This initiative was followed by an open-day workshop where information brochures were distributed to the community.

Participation in the project was open to all members of the community that were willing to participate. The KDI, together with the communities, named the clean-up day “the Shanela Day” (sweeping day). The clean-up targeted the stream, open areas, and the street (see plates 5-6). Community members who participated in the initial project were divided equally into four groups. The groups were to continue cleaning the stream each Sunday thereafter on an alternating basis. This study’s respondent, Sibiya (Refer Appendix 3) explained that after the clean-up, people displayed a sense of responsibility and willingness to continue with participation, even though the sponsors had withdrawn from the project.

5.2.3 Discussion

Different factors encouraged communities to enter into partnerships, the one being crime, while the other was to neutralize tensions between community members. Both initiatives aimed to bring the segregated community together. Given the political differences in KwaMashu, political violence played a role in encouraging criminal violence and in debilitating the socio-economic conditions.

Political differences are known to cause segregation amongst communities. Khan (1998) points out that socio-economic and socio-political factors have contributed to the fact that many previously marginalized communities remain unfamiliar with their environments. Political disturbances in KwaMashu played a role in dampening the enthusiasm of structured groups and the general community, discouraging them from continuing on a bigger scale with environmental development efforts. Long and Arnold (1995) maintain that partnerships that attempt to resolve deep-seated historical conflicts have limited, although positive potential. Most of the existing community organizations in KwaMashu are currently focusing on capacity building as an approach to improve the socio-economic status and the standard of living of the community. An awareness of

the need for development has shifted attention to environmental issues. However, at this stage, there are very few programmes in place to address these problematic issues.

Long and Arnold (1995) assert that the people who participate in a partnership, through their efforts and shortcomings, determine whether the partnership will succeed, partially succeed or fail. Partnership implementation requires a leadership to champion the partnership and help the other participants towards achieving the goals of the project. A partnership requires a set of committed individuals who:

- (a) have a sense of vision,
- (b) are committed to success;
- (c) and have strong teamwork skills and a willingness to change course when current strategies are not working (Long and Arnold 1995).

In the interviews that were conducted with two leaders of the KDA, the researcher observed a disinclination to respond to certain questions, such as those relating to funding, political alliance and criteria used to allocate local resources. A number of factors might have been behind this reluctance such as fear that the researcher might misuse the information, political mistrust, and a lack of understanding of the importance of the study to the community. The two KDI leaders who were interviewed were open and dynamic and offered further assistance as required. They provided a business plan and a proposal that was submitted to the Department of Agriculture and Environmental Affairs for approval and information about funding for the open area upgrade project.

5.3 Environmental status

5.3.1 Environmental perceptions

Community action in preventing pollution depends on the impulse, interest, and understanding the environment at grassroot levels. Oelofse (1998) states that understanding the position of people in the environment is important in resolving conflict over environmental problems. To be able to assess the sustainability of a community partnership, it has become necessary in this study to evaluate how different people perceive the environment and the position they assume in relation to the

environment. Question 3 in the questionnaire, provided the respondent with a list of issues and three criteria on which these could be rated (Refer Appendix 1)

Table 5. Environmental Perception

<i>ISSUES</i>	<i>VERY IMPORTANT</i>		<i>OF SOME IMPORTANCE</i>		<i>NOT IMPORTANT</i>	
	<i>A</i>	<i>B</i>	<i>A</i>	<i>B</i>	<i>A</i>	<i>B</i>
<i>Partnerships</i>						
Clean water in rivers	8	14	0	0	0	0
Quality soil for planting	5	10	2	0	0	0
Open spaces for recreation	8	14	0	0	0	0
Crime control	8	14	0	0	0	0
Employment opportunities	8	14	0	0	0	0
Provision of service	8	14	0	0	0	0
Home vegetable gardens	8	8	0	3	0	1
Refuse removal	8	14	0	0	0	0
Provision of housing	8	14	0	0	0	0
Communication with local authorities	8	14	0	0	0	0
Local participation in local programmes	8	11	0	0	0	1

A total of 88% of the respondents in partnership A rated all (except soil quality) the environmental issues as highly important, whereas in Partnership B only 57% rated these issues as highly important. An environmental awareness education programme was conducted by the KDBA in 2001 for the respondents of Partnership B which was not the case with Partnership A. This implies that environmental awareness education did not have much effect on the way this group perceives its environment, although their participation was high in implementing the project.

To further assess whether the respondents had an understanding of environmental issues, they were asked to explain the term environment by mentioning three factors that would describe the term (Refer Appendix 1, Section 1).

Table 6. Definition of Environment

DEFINE ENVIRONMENT	KDA PARTNERSHIP	KDI PARTNERSHIP
Cannot define	0	0
Bio-physical aspects only	8	5
Biophysical and social aspects	0	9

All respondents in the KDA partnership defined only the biophysical components of the environment. There is a general understanding of the environment, although most people still focus on the biophysical aspects when referring to the environment. A total of 66% in the KDI partnership were able to relate the environment to social and economic aspects. A definition of the environment, which integrates social, biophysical, economical and political aspects, can be traced to the evolution of the concept of sustainable development. The reason for the respondents in the KDI partnership being able to link the environment to social issues was that an environmental awareness programme had been conducted, introducing them to the appropriate management of waste. Although the awareness programme did not have an effect on the perception of environmental importance by respondents, it did improve their knowledge about the environment.

Differences in defining the environment were assessed and it was found that females were able to integrate social and environmental aspects (see Figure 8). The field observations revealed that more females engage in gardening than males. Although males were involved in cleaning, very few participated in a continuous management of the catchment through gardening.

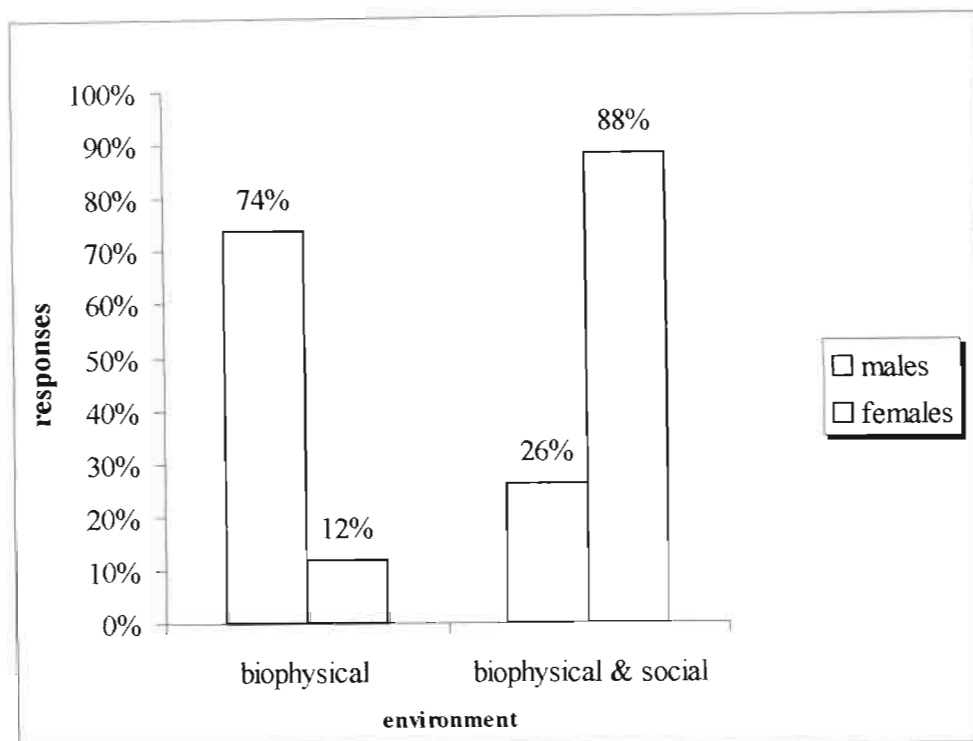


Figure 8. Males and Females defining the environment

5.3.2 Facilities and services

The facilities and services available to the community also play an important role in gauging the socio-economic status and lifestyle of that community. The respondents were asked to comment on basic services provided to them by the local authorities (Refer Appendix 1, Section 4). These responses are recorded in Table 7 below.

Facilities and services are available in KwaMashu, but not at a satisfactory level. The level of unemployment, especially of the youth, is high. Currently, there are no programmes to assist the community to improve its level of unemployment. There is only one shopping complex in KwaMashu, the condition of which is very poor compared to others in Phoenix and Newlands East. There was one bakery that employed local people, but it closed down two years ago, and there are no industries in the area. This makes it difficult for the youth to find employment. All the shops that were owned by local people were demolished and burned down during the political violence period. Owing to the shortage of food suppliers in the area, spaza shops were begun, but nonetheless a high percentage of the income leaves the area instead of being spent locally.

Educational facilities are available and these could be used to further education and promote the awareness of the community by including environmental studies in the curriculum, and by developing practical programmes.

Table 7. Response on facilities and services

SERVICES AND FACILITIES	AVAILABLE		NOT AVAILABLE		SATISFYING	
	A	B	A	B	A	B
PARTNERSHIPS						
Waste Collection	✓	✓			Yes	Yes
Sewage System	✓	✓			Yes	Yes
Recycling Services			✓	✓	N/A	N/A
River/canal cleaning			✓	✓	No	No
Educational institutions	✓	✓			Yes	Yes
Library	✓	✓			No	No
Clinic	✓	✓			No	No
Shopping Complex	✓	✓			No	No
Sports ground	✓	✓			No	No
Maintained tarred Roads	✓	✓			Yes	No
Telephone facilities	✓	✓			Yes	Yes
Factories/industries			✓	✓	No	No

5.3.4 The importance of the stream

Part C of Questionnaire A (Refer Appendix 1) focused on the participation of the community members in managing the stream. The respondents were asked to name reasons for and the benefits of managing the environment (see Table 8). In their answers, they mentioned that the stream impacts greatly on adjacent homes, that there are aesthetical, cost and health implications when it is not maintained. Some members referred to the use of the stream catchment area for gardening.

Table 8. Uses of the stream

ACTIVITIES			SIGNIFICANT INCOME BENEFIT	
PARTNERSHIPS	A	B	A YES/NO	B YES/NO
Fishing	0	0		
Planting Vegetables	5 respondents	6 respondents	No	No

It was discovered that some of the respondents are able to support their families from the food and income generated through gardening. Although on a very limited scale, this contributes to the socio-economic circumstances of the community. This study's respondent, Zungu (Refer Appendix 3) explains:

"I am a pensioner and only receive a government grant once a month. I am able to support my family with the food that I get from this small gardening plot. Although we are not able to sell everyday, people often like to buy fresh vegetables. If there was enough space we would be able to sell in large quantities. The KDBA environmental awareness programme encouraged people to make their areas useful instead of throwing waste about."

5.3.5 The role of the local authority.

The local authorities, in terms of LA 21, are required to formulate partnerships with the community and initiate programmes to improve local areas. Besides being essential for acceptable living conditions to exist, the maintenance and development of local areas may also contribute to job creation and local development. In both areas studied, communities were not satisfied with the input of the local authorities, criticizing the poor communication channels between themselves and the authorities. When local authorities were asked whether they understood the term "Local Agenda 21, they were asked to explain it (Refer Appendix 2), half of those interviewed were unable to define the concept and were not familiar with its principles. They were also asked how they communicated with the local people. It emerged that community meetings were the only existing tools used to discuss any problems. Although half of the authorities knew about the LA 21 resolutions, the researcher observed that there were gaps in

understanding the term fully and a lack of awareness of the responsibility of local authorities in implementing conservation policies.

5.3.6 Activities in the vicinity of the KwaMashu stream.

The observation was conducted to identify the uses of the stream in the area. Visual information was collected for discussion in this research. The activities identified include, gardening, fishing, swimming and waste dumping (see plates 3-4c).

Plate 3. Waste dumped in the stream

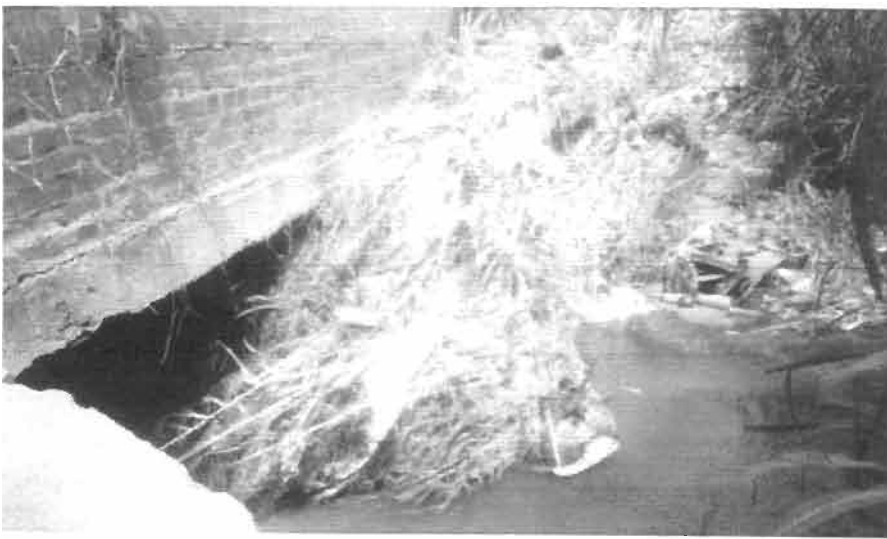


Plate 4 a. Agricultural Activities along the stream



Plate 4 b. Agricultural activities (Mrs Nxumalo removing weeds from her garden)



Plate 4 c. Agricultural activities (Mr Ngcobo in his banana plantation)



The communities agreed that, although the stream is polluted, it is of benefit to the community, in terms of agricultural potential. The perceptions and negative activities of the people may change with increased awareness and education. As Ntombela (Refer Appendix 3) noted

“the stream is useful but if polluted it poses risk even to the people who grow vegetables along the catchment. People throw waste in the stream during daylight, including garden refuse, old furniture, rubble and general waste. Education might assist in changing the negative attitudes of these people.”

Plate 5. Partnership B (KDI) community cleaning the stream



Source: KDBA

Plate 6. Waste removed by the community from the stream



Source: KDBA

5.4 Classification in terms of partnership models

Long and Arnold (1995) assert that environmental partnerships succeed because of the commitment and creativity of the people that champion them. To further assess these partnerships, it is necessary to understand their typologies as prescribed by Long and Arnold (1995). This section locates Partnership A and Partnership B in terms of the partnership typology suggested by Long and Arnold (1995) and discussed in chapter 2, which deals with the theoretical framework. In order to achieve this, it is necessary to divide the partnerships into two parameters, both relating to the initiation and/seeding phase of the partnership. The parameters are set in terms of the conflict among the parties prior to the partnership and the formation and the relevance of the partnership's goals as they relate to the goals of each participant.

In both the KDA and the KDI partnerships, there were gaps in communication that existed between the local authorities and the community prior to the formulation of partnership. This was mainly as a result of unsatisfactory service provided to the community, the poor condition of facilities, poor management of open areas, and the poor response to community complaints by the local authorities. In both KwaMashu K and C, there had been no prior partnership formed to clean and manage the stream and open areas.

Long and Arnold (1995) note that the degree of interest needs to be balanced for the partnership to take off. There must be one party that believes the issue to be of crucial importance, i.e. the core relevance must be high for at least one party. The issue of crime, flooding and poor management of the stream is of high relevance in the KDI partnership, whereas in the KDA partnership, control of illegal dumping and maintenance of open areas and parks were of high importance to the community.

Long and Arnold (1995) point out that, in the case of low relevance, at least one party must consider the partnership important. The other party may provide assistance as long as they are involved in the management of the process, or as long as the process is not inconvenient in terms of time and resource expenditure. In partnership A, the KDA approached the donor for sponsorship, provided resources in terms of labour, and

managed the funding and the project as a whole. In partnership B, KDI approached the donors and KDBA for their contribution of resources towards the project. The KDI managed the project and the donors provided resources which were distributed evenly among the community members that participated in the project. The partnership provided a positive impact on the community where the project was implemented.

Using Figure 5 in chapter 2, it may be argued that the KDA and the KDI fell into the low conflict and high relevance categories. In both these partnerships, the relevance is high for one party as the issues identified as important are purely local issues. The level of conflict is low; therefore both partnerships are regarded as leverage partnerships.

Leverage partnerships are the most beneficial among the environmental partnerships (Long and Arnold 1995). They begin with one organization agreeing to lead the project. Leverage partnerships often come into being because organizations want to improve their return on an investment by pooling resources and knowledge. Not all participants in this form of partnership are always actively engaged with the environmental issues the other is attempting to resolve. In both partnerships, the sponsors were not actively involved in the implementation. After providing the funding and the resources they withdrew from the project. Long and Arnold (1995) assert that the driving force is that one party fulfils its mission and the others get public credit and leverage.

5.4.1 Initiation phase

More time is invested in a leverage partnership's initiation phase as compared to other kinds of environmental partnerships. In KDI, prior to the execution of the partnership, the leader of the partnership had to convince the community to participate. Their efforts were supported by the environmental awareness programme that was conducted by the KDBA. The preparation for the implementation of the project took a period of more than eight months. The results were positive, in that communities willingly participated in the project. Communities perceived themselves as having a positive impact on their environment by participating.

The initiation phase for the KDA was simple because funding for the project was provided. The committee members appointed people who would implement the project. The project leaders had to ensure that the people appointed, as well as the community, understood the goals and benefits of the project.

5.4.2 Resourcing leverage partnerships

Long and Arnold (1995) assert that the mutual expectation in a leverage partnership is that everyone will contribute something of value to the partnership, i.e. knowledge, money, equipment, political influence, or implementation skills. The Operation Jump Start Association provided funding to the KDA partnership and the participants provided resources (in terms of labour), local knowledge and their values. This also illustrates the shared resources aspects and the interdependence of the partners in the partnership. In the KDI partnership, all parties provided resources. However these resources were unique to each partner. In incorporating these resources, the KDI was able to achieve the aim and objectives of the project.

5.4.3 Executing leverage partnerships

The effective execution of a partnership depends on the commitment of those engaged in the partnership. In this case, the donors were not interested in solving the community problems, as their engagement in the implementation programme was on a small scale. Because the communities were committed to cleaning the stream and open areas, they were able to deal with the obstacles in the way of their goal.

Long and Arnold (1995) state that a leverage partnership that fails to keep participants involved tends to lose focus and momentum. This might lead to other participants losing interests to the project because:

- the partnership accomplishes less
- individual organizations fail to find suitable solutions; and
- involvement proves to be an issue.

5.4.4 Closing leverage partnerships

The most significant component of successfully closing a leverage partnership appears to be providing recognition and credit to participants (Long and Arnold 1995). This

might be in the form of positive publicity and other impartial programs to raise the reputations of those who champion the partnership. Participants must view the partnership as being personally fulfilling. In the KDI partnership, there was media coverage, although very limited, by local newspapers. However this motivated the community in that they continued with the project even after the closure stage.

There was no media coverage for the KDA partnership. Although some of the participants continued with the management of the catchment through subsistence gardening, it was only those that were trying to assist their families.

5.5 Determinants of a successful partnership

The leaders that championed the partnerships in KwaMashu believe that they provided a useful tool and viable solution in solving local environmental problems. To assess the effectiveness of these community partnerships the following factors were examined: shared resources, the process of capacity building, the people and the goals of the project.

i) People

According to Long and Arnold (1995), people are the most important determinant of the success of a partnership because they drive and implement it. For the partnership to be successful, all stakeholders must contribute in decision-making and be involved through all phases of the project. Partnerships that share knowledge, and complete joint research present the greatest win-win opportunities (Long and Arnold 1995). The success of the partnership is likely when parties are willing to work together and significantly contribute towards the achievement of the set goals.

In the KDI partnership, the communities had a chance to give input and voice their concerns and were involved as early as the planning phase. The community was very willing to resolve their environmental problems as they affected them directly. This group was able to provide not only the manual labour for the project, but their values, knowledge, and experiences regarding the problems.

In the KDI partnership, the community was informed of the project initiation, but their main involvement was in the implementation phase. The KDA members decided on the people that would participate in the project, a process that was not open enough for the community. The participants were not directly involved in the decision-making process, and were only brought in at ground level to do the work.

ii) Shared resources

As noted in chapter 2, shared resources are one of the important determinants of the success of a partnership. For the partnership to be effective, both parties must bring something to the table. In the two partnerships examined, both parties contributed to the project. As discussed earlier, the KDA partnership was a pilot programme and initially was intended to cover the whole of KwaMashu. The pilot project was completed successfully and the results were outstanding. After completion of the pilot project, the sponsor withdrew, meaning that there was no more funding available to continue the project in other sections.

iii) Capacity building

A partnership must be able to build the capacity of the participants for them to be able to initiate other future sustainable projects. In the KDI partnership, the participants and other members of the community, after the closure of the partnership, decided to adopt a-spot to green-up their areas through subsistence gardening, i.e. small areas were provided for each on the stream catchment and in open areas. Such community members find that they also benefit economically from the small areas allocated to them.

In the KDI partnership, leaders of the organization, together with the community, were able to put together a proposal for community projects that would address the open area problems. However, during the study, nothing further was done to manage these areas as the community were awaiting the approval of their proposed projects.

iv) Goals

The goals of the partnership must be translated into strategies and tactics if the participants are to accomplish the aim of sharing resources. Clear-cut objectives ensure commitment from the participants. The goals must clearly indicate the direct benefits to each party involved in the project. Achieving the goals of the project is a gateway to getting sponsors for future proposed initiatives. Goals motivate participants to take risks where success is improbable (Long and Arnold 1995).

The achievement of the goals of the programme depends on the people and leadership that drive the project, in terms of their control, management and motivation. Long and Arnold (1995) assert that successfully completed projects results in attitudinal change and improve the current levels of environmental quality, thereby convincing individuals to change their behaviour (Refer Figure 6 in Chapter 2).

5.6 Conclusion

Both partnerships, i.e. the KDA and the KDI, were developed to manage the degraded small stream in KwaMashu (Durban). The results of this research indicate that both partnerships were successful in rehabilitating and improving the condition of the stream and, as a result, reducing hazards posed by the stream. The risk of flooding and its associated impacts has been reduced. There is management of reeds, and waste (and illegal dumping) along the stream catchment has been minimized. However the study found that there were significant differences between the socio-economic profiles and the political affiliations of members. The KDI partnership was found to be more successful than the KDA partnership.

The KDA partnership received funding and originally the project aimed to cover all sections in KwaMashu with K-section as a pilot project. Owing to the withdrawal of funding by the sponsors, the KDA was not able to extend the partnership to other areas of KwaMashu, but was only able to implement the pilot project in K section. By contrast, the KDI received no incentives in terms of money, but community participants were educated on waste and open space management. The KDBA (Keep Durban Beautiful Association) provided a vision to the community which enabled them to

achieve the goals of the project. Members of the KDI were able to define the environment in terms of social, economic and environmental benefits, whereas the members of the KDA focused only on the biophysical aspects when defining the environment. This highlights that the environmental awareness provided by the KDBA played a significant role in improving the understanding of the community and changing their perceptions of the environment.

The study found both partnerships to be leverage types, and this is a win-win approach, whereby both parties benefit from the project. The study also found the leadership of the KDI to be more proactive than that of the KDA. After the completion of the initial project, the KDI developed a framework and proposals for future environmental partnership projects and approached the Department of Agriculture and Environmental Affairs for funding. These disparities clearly demonstrate the differences in terms of the effectiveness of the partnerships.

Understanding how and why communities make choices about environmental issues is an important aspect of evaluating whether environmental awareness education programmes and participation in partnership are fostering better environmental decisions. The goal of community based environmental activities, is not to influence individual behaviour per se, but rather to mobilize whole communities to ensure that members are knowledgeable and that they participate fully and meaningfully in environmental decisions affecting them.

Although there were some differences in the leadership of the two partnerships being analysed, this did not affect the knowledge that people have about the environment. There is not much difference in the responses of the two communities, except that the community that participated in partnership B was able to integrate social issues when defining the environment. The two community organizations were established at different periods and under different political conditions which is thought to have a link to the responses and character of the leaders of the organisations.

There is a need for local authorities to improve the channels of communication with the community. According to LA 21, local authorities need to ensure that the communities develop programmes that will empower its citizens and also improve their quality of life. This was also emphasized in the World Summit 2002, where guiding principles were announced for the implementation of LA 21, by developing partnerships. The research indicated that local authorities are not effectively involved in enhancing the quality of life of its citizens, therefore roles and responsibilities according to LA 21 need to be defined.

Much more attention should be paid to the development and empowerment of women in the partnership activities. The role women play in the management of the stream, even after the closure of these partnerships has proved to be very important.

CHAPTER 6

CONCLUSION

Partnerships are an integral tool for community development projects and for addressing environmental problems. Two partnerships were developed in KwaMashu to deal with environmental problems associated with a degraded small stream. Both partnerships succeeded in rehabilitating the stream to some degree and consequently reduced the hazard or risk it posed. However, the KDI partnership was more successful than the KDA partnership. The KDI did not receive funding, but the KDBA provided a vision for the partnership by conducting awareness programmes on waste and local open area management. As a result of this vision, the community was able to initiate a sustainable project because the awareness programmes are not only concerned with knowledge, but also with feelings, attitudes, skills, social actions and long-term benefits. By contrast, while the KDA did receive funding, it did not have the benefit of environmental awareness programmes. The main conclusion derived from the greater success of the KDI is therefore that funding is not the key aspect to success in a partnership.

Meaningful involvement of skilled, well-informed and competent communities is an increasingly important aspect of environmental decision-making. Community-based projects are often hampered, not only by inadequate financial resources, but also by the lack of a technical understanding on the part of citizens. While both partnerships had access to supportive structures to provide the technical assistance and skills required to rehabilitate the stream, and both are still functioning, the KDA's membership declined when funding dried up. Therefore in addition to the skills needed to rehabilitate the stream, training in business skills techniques would assist in enabling the community to generate the income required.

Successful partnerships should have common objectives, clearly defined deliverables and leveraged private sector resources and capacity. However, in both scenarios, businesses that provided resources were not directly involved in achieving the goals of the project. In the 2002 World Summit, private sector engagement was highly

encouraged for local capacity building and to provide leverage resources. If a process is to win broad local support, the sponsor should be an organization that has commitment, a good reputation locally, and technical capacity to assist the community and it should remain neutral throughout. The two partnerships in this study were both leverage partnerships, thus representing win-win situations. Given the background and status of the community, an extension of the two partnerships to provide further assistance would be of benefit.

6.1 Implications and recommendations of the study

Partnerships are not only effective in facilitating local development projects and addressing environmental problems, but they also have the potential to provide relief for the consequences of violence and to help alleviate crime, both of which are still strongly present in townships. They have this advantage because they are able to bridge the gaps of mistrust and misunderstanding between the community and local authorities. The importance of this study is that it has shown that community partnerships are capable of working in townships, but either funding or environmental awareness and business skills training is required in order for them to be more effective.

The KDBA has played a valuable role through providing awareness and advice to communities. The recommendations of this study are therefore the following:

The eThekweni Municipality must be proactive and take a leading role by;

- encouraging the development of partnerships in townships to implement local development projects, to address environmental problems and to improve the socio-economic status of the community.
- empowering the community to sustain these partnerships by providing funding, environmental awareness, and technical and business skills training.
- providing greater support to the KDBA to enable them to extend their services and benefits.
- accessing foreign funding to initiate the development of partnerships in townships.

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APPENDIX 1

Most urban areas are faced with the problem of environmental degradation resulting from human anti-social behaviour and at times, poor services. Citizens are now required to engage in solving their environmental problems through partnerships with the local authorities, civic organisations, CBO's and NGO's. The purpose of this questionnaire is to examine the partnerships that have developed in the management of Umhlanga River in KwaMashu. This is entirely voluntary and anonymous. Your honest participation will be greatly appreciated.

A. General

1. How would you define environment?

.....

2. What are the 3 most important environmental problems in your area?

.....

3. Please indicate how important the following issues are to you and in your area.

Mark with an X on the spaces provided below.

1 = Very important

2. = Of some importance

3. = Not Important

ISSUES	1	2	3
Clean water in rivers			
Quality soil for planting			
Open spaces for recreation			
Crime control			
Employment opportunities			
Provision of services			
Home vegetable gardens			
Refuse removal			
Provision of housing			
Communication with local governance / authority			
Local participation in local problems			

4. Please indicate which services are available to you. *Mark with an X in an appropriate box*

Services	Available	Not available	Are you satisfied with the service?		Who provides a service?
			Yes	No	
Waste collection					
Sewage system					
Recycling services					
River / canal cleaning					

5. What is the level of provision of facilities in your area?

Facilities	Available	Not Available	Are you satisfied with the service		Who provides the service
			Yes	No	
Education :-primary - High School					
Library					
Clinic					
Sports ground					
Recycling centre					
Other					

6. Have you ever experienced the following problems in your area?

Problems	Yes	No	Explain how often does this happen	If yes, What did you do?		
				Informed the councillor	Informed the community organisation	Solved the problem myself How?
Flooding of houses due to river overflow						
Problem of waste dumped in open spaces						
Waste dumped along the river / canal						
Health problems due to polluted river / canal						

B. Social impacts of river pollution

1. What is the name of this water body?

.....

2. Where is your house located from the river / canal?

1. less than 100 m
2. more than 100m
3. between 100 and 200m
4. above 200m

3. Is the river useful or important to you?

1. Yes
2. No

4. Explain how you use the river?

.....

5. Explain why you use the river for these purposes?

.....

.....

6. How is the quality of the water in the river?

1. Good
2. Satisfactory
3. Bad

7. What do you think causes pollution or damage to the river?

.....

.....

8. Do you have any member of your family earning income through the following?

Aspects	Yes	No	Is this significant income?
Recycling (paper, bottles, tyres, tins etc).			
Growing vegetables along the river / canal to sell			
Fishing to sell			

9. Are the following available in your nearest river? *Mark with an X*

Biological aspects	Available	Not Available
Fish		
Trees along the river		
Clean water		
Small living animals in the water		
Grass on the edge of the river		

10. What problems that have not been mentioned does the river cause for you?

.....

C. Participation / Management

1. Do you know your local ward councillor?

1. Yes
2. No

2. If yes, how would you define his/her role and responsibility in community?

.....

.....

3. What did your councillor do in managing the activities along the river?

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

4. Have you ever participated in any of the following?

Activities	Yes	No	If yes how did you learn about it?		
			Through my local councillor	Community organisation	Through other people
Local meetings					
Clean up of your river					
Clean up of the open space					
Rehabilitation of parks					

5. What activities have happened to manage or improve the river?

.....
.....

6. What was your role?.....

.....

7. Are there any local community organisations in your area?

1. Yes
2. No

8. Are you a member of any of the community organisations?

1. Yes
2. No

9. What is the name of your community organisation?.....

10. How would you describe the role of your organisation in the community?

.....
.....

11. Did your organisation ever participated in any other local environmental problems?

1. Yes
2. No

12. How do you feel about participating in your local issues?.....

.....

13. Have you ever received any environmental education or training about the river?
1. Yes
 2. No
14. Has there been any collaboration between your local organisation and the following:
1. Local councillors
 2. Businesses
 3. Non-Governmental Organisations
 4. Other, specify.....

15. What kind of projects were you together involved in?

16. What would you say the outcome was?.....

D. Partnerships

1. Who decide on the management of the river in your area?

2. Are there partnerships between your organisation and local authority?
1. Yes
 2. No

If yes, how would you describe the partnership?.....

3. Did you / your organisation participate in the partnership developed to manage the river?
1. Yes
 2. No

If no please proceed to question 8

4. What are your feelings regarding working together to manage the river?.....

5. Who was involved in this partnership?.....

6. What lessons have you learned from the development of a partnership?.....

7. Was the partnership effective in achieving the goals of the project?

8. Whom do you believe should have taken the improvement activities of the river?

.....

explain why ?.....

.....

9. Who is responsible for maintaining river in your area?

1. Local councillor
2. Community Organisations
3. Myself

E. Environmental awareness

1. What do you see as the most environmental problems facing your area?

.....

2. Do you think it is important if the river is polluted?.....

3. What do you think needs to be done for the best future in managing these resources in your area?

- a) Rivers.....
- b) Open Spaces.....
- c) Parks.....

3. Were you ever educated / trained about the environment?

1. Yes
2. No

4. If yes what effect did the education give you?

.....

5. How do you see the role of environmental education in your area?

1. Very Important
2. Important
3. Not Important

F. Demographics

1. How long have you lived here?.....
2. Do you like living here? Explain.....
3. Do you own or rent the property?.....
4. Does the river affect the value of your property?.....
5. Gender
 1. Male
 2. Female
6. What is the Income level of the household
 1. 400-500
 2. 500-1000
 3. 1000-2500
 4. 3000 or more
7. Form of housing
 1. Four room
 2. Two room
 3. Extended
 4. Informal
8. Who is the head of the household?.....
9. Do you have any children in your household?.....
If yes, how many?.....

Thank you for your cooperation!!

APPENDIX 2

Most urban areas are faced with the problem of environmental degradation resulting from human anti-social behaviour and at times, poor services. Citizens are now required to engage in their environmental – solving process through partnerships with the local authorities, civic organisations, CBO's and NGO's. The purpose of this questionnaire is to examine the partnerships that has developed in the management of Umhlanga River in KwaMashu. This is entirely voluntary and anonymous. Your honest participation will be greatly appreciated.

A. GENERAL

1. How would you define environment?

.....
.....

2. Is there an environmental management plan for KwaMashu area?

- 1. Yes
- 2. No

3. Does it involve river/canal management?

- 1. Yes
- 2. No

4. What function do the river perform in the environment?

.....
.....

5. What are the three most environmental problems in this area?

.....

6. What is being done by the local authority to address these problems?

.....
.....

7. Do your work functions link to any community activities?

- 1. Yes
- 2. No

If yes explain how?.....
.....

8. What is your role and responsibility in the community?

9. How long have you been working with the community?.....

10. Have you ever been involved in solving environmental problems that affect the community?

- 1. Yes
- 2. No

If yes, what were they?.....
.....
.....

B. RIVER MANAGEMENT

1. Are you aware of the activities that occur along the river and its catchment in this community?

- 1. Yes
- 2. No

If yes what are they?.....
.....

2. What is the condition of the river in this area?

- 1. Good
- 2. Satisfactory
- 3. Bad

3. What has the local authority done to improve the quality of the river in this area?

.....
.....

4. What is your opinion about including the community in managing the river?

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

5. Have the community members ever forwarded complaints relating to the river?

- 1. Yes
- 2. No

6. If yes, what was problem?.....
.....
.....

7. What was your reaction to the problem?.....
.....
.....

8. Were the community involved in solving the problem?

- 1. Yes
- 2. No

9. What programmes are in place to create the community's environmental awareness?.....

.....

10. Have you ever heard of Local Agenda 21?

- 1. Yes
- 2. No

If yes, what is it all about?.....

.....

11. How can you relate your work to its principles?.....

.....

.....

C. PARTNERSHIPS

1. Were there any partnerships developed in your area in managing the natural resources?

- 1. Yes
- 2. No

2. What were the stakeholders involved in these partnerships?.....

.....

3. When was the last time you entered into a partnership?.....

4. What was the aim of the partnership?

.....

.....

5. How was this partnership formed?.....

.....

.....

6. Were you successful in achieving the goals of the project?

- 1. Yes
- 2. No

Please explain.....

.....
.....

7. Do you find partnerships an effective way of solving local problems

- 1. Yes
- 2. No

Please give the reasons.....
.....

8. How do you feel about working in partnership with other local structures (CBO's, NGO's and civics)?

.....
.....

9. What was your role and responsibility in the partnership process?.....

.....

10. Are there any other local programmes that you are involved in?

- 1. Yes
- 2. No

If yes, what are they?.....
.....
.....

D. DEMOGRAPHICS

1. What is your role/job in local authority?

.....

2. What department are you in?

.....

3. How long have you worked there?

.....

4. Gender 1. Male 2. Female

5. Background training/ education qualification.....

6. Where is your place of residence?.....

APPENDIX 3

Interviews - 2001

Local authorities and community organizations

- T. E. Mdiniso, 2001, Local Authority Official, KwaMashu Township Offices.
E. Zulu, 2001, Councillor, KwaMashu Ward 41.
O. Majola, 2001, Local Authority Official, Parks Department, KwaMashu.
T. Mazibuko, 2001, Local Authority Official, Health Department, KwaMashu.
P. Mbatha, 2001, KwaMashu Youth Association, KwaMashu.
S. Mabuya, 2001, KwaMashu Resource Centre, KwaMashu.

KwaMashu Development Initiatives

- T. Mcube, 2001, KwaMashu Development Initiatives, KwaMashu.
D. Sibiya, 2001, KwaMashu Development Initiatives, KwaMashu.
M. Mwandla, 2001, KwaMashu Development Initiatives, KwaMashu.
Z. Ntombela, 2001, KwaMashu Development Initiatives, KwaMashu.
R. Ntombela, 2001, KwaMashu Development Initiatives, KwaMashu.
S. Khanyile, 2001, KwaMashu Development Initiatives, KwaMashu.
F. Mhlongo, 2001, KwaMashu Development Initiatives, KwaMashu.
C. Ncwane, 2001, KwaMashu Development Initiatives, KwaMashu
T. Chili, 2001, KwaMashu Development Initiatives, KwaMashu
Z. Dlulisa, 2001, KwaMashu Development Initiatives, KwaMashu.
E. Khumalo, 2001, KwaMashu Development Initiatives, KwaMashu.
M. Gumede, 2001, KwaMashu Development Initiatives, KwaMashu.
P. Solwa, 2001, KwaMashu Development Initiatives, KwaMashu.
D. Kubheka, 2001, KwaMashu Development Initiatives, KwaMashu.

KwaMashu Development Association

- N. Sodwa, 2001, KwaMashu Development Association, KwaMashu.
P. Mhlongo, 2001, KwaMashu Development Association, KwaMashu.
S. Zungu, 2001, KwaMashu Development Association, KwaMashu.
G. Gumbi, 2001, KwaMashu Development Association, KwaMashu.
T. Africa, 2001, KwaMashu Development Association, KwaMashu.

M. Dlodlo, 2001, KwaMashu Development Association, KwaMashu.

F. Ngobese, KwaMashu Development Association, KwaMashu.

M. Mkhize, KwaMashu Development Association, KwaMashu.

Z. Ngcobo, KwaMashu Development Association, KwaMashu.

L. Ngcobo, KwaMashu Development Association, KwaMashu.