TRIBAL AUTHORITIES AND CO-MANAGEMENT OF RIVER SYSTEMS: A CASE STUDY OF SALEM COMMUNITY

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Submitted in partial fulfilment of the academic requirements for the Degree of Master of Environment and Development

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Preface

This dissertation was done at the Centre for Environment and Development, University of Natal, Pietermaritzburg under the supervision of Professor Charles Breen and Dr Joan Jaganyi

I wish to indicate that this is an authentic study which has not been undertaken before. In cases where information used has been taken from other authors or studies, this has been indicated through the use of references of those sources.

Signed

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Abstract

Common-pool resources are goods that are kept from potential users only at a cost. These goods are subtractible in consumption and can diminish or disappear. Our failure to manage or exclude noncontributing beneficiaries in river resources could lead to lack of maintenance or protection of these resources. Critical to access to and use of river resources are tenurial rights. Without a stake in the tenure and governance of river resources, local communities could consume river resources opportunistically. It is on this background that in order to attain the better management of river resources, this study has explored tenurial rights as critical in the realization of this objective. It is imperative that all relevant stakeholders play a role.

Critical in this role are the institutional instruments. In alluding to the need to better manage our river resources, the South African government, through the Department of Water Affairs and Forestry (DWAF), has passed the Water Act. This act is tasked with ensuring that our water resources are conserved so as to serve the present and the future generations. However, the success of this law, as various researchers indicate, rests on a co-operative approach involving all role players, particularly at local level. It is only when co-management of river resources is put in place that we can be in a position to use our resources sustainably for the benefit of the present and the future generations. Central in this approach, in rural areas, are *Amakhosi* and other traditional institutions which command power.

In order to test this hypothesis, this study was conducted in Salem, a peri-urban area where the power and authority of *Amakhosi* is, at least, not as strong as in deep rural areas. While the power of these institutions has waned over decades, this study has found a need to include *Amakhosi* in decision-making on river resource use because of their long-standing authority over communities living alongside rivers. Despite the decline in the power of *Amakhosi* in enforcing control measures in the management of river resources, a myriad of responses indicate that this institution still possess authority in the control and management of river resources in the Salem area. However, this study has

further established that a co-operative system entailing all relevant stakeholders could enhance, and indeed bring about a sustainable management of river resources.

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Acronyms

ACM Adaptive Collaborative Management

ANC African National Congress
CMA Catchment Management Agency
CBOs Community Based Organizations

CBNRM Community Based Natural Resource Management

CMC Catchment Management Committee

CONTR Congress of Traditional Leaders of South Africa

ALESA

DEAT Department of Environmental Affairs and Tourism

DWAF Department of Water Affairs and Forestry

EMCA Environmental Management Co-operation Agreement

FSG Farmer Support Group

ICM Integrated Catchment Management

IDP Integrated Development Plan

IFP Inkatha Freedom Party
IK Indigenous knowledge
IT Indigenous technology

IUCN International Union for the Conservation of Nature

IWRM Integrated Water Resource Management

MOU Memorandum of Understanding

NCMP Ntshongweni Catchment Management Programme

NWA National Water Act

NEMA National Environmental Management Act

NGOs Non Governmental Organizations

PTO Permission to Occupy

RDP Reconstruction and Development Programme
SADC Southern Africa Development Community

UDF United Democratic Front

UDM United Democratic Movement

UNDP United Nations Development Programme
UNEP United Nations Environmental Programme
UNCHS United Nations Centre for Human Settlement

WRC Water Research Commission
WUAs Water Users Associations

Dedication

This dissertation is dedicated to my parents, the late Ned and Gertrude Zeka and my aunt Nomalizo who have, through my early age, been inspirational to me.

Acknowledgements

I would like to thank the Water Research Commission (WRC) for providing funds to conduct this research, as without their funding this would not have been possible. I would also like to take this opportunity to thank Professor Charles Breen whose guidance and patience has help me to complete this study. I would also like to thank Dr Joan Jaganyi who has also contributed immensely to my completion of this study. I also wish to thank Chris Tham, Nyambe Nyambe and Abraham Nkatha for their help and contribution to the realization of this goal. As this study was conducted in Salem, I would like to thank Sfiso Ntinga and Musa Zwane both of Farmer Support Group for their contribution through the knowledge of the area. Lastly, I would like to thank Nonkululeko, a community member from Salem for guiding me to various households in the area. Lastly, I would like to thank the Institute of Natural Resources (INR), particularly Duncan Hay for providing me with logistical support throughout the execution of this exercise.

CHAPTER ONE

INTRODUCTION

1.1 Introduction

Rivers are pervasive features of the landscape to the extent that many activities that take place depend on their existence, with the exception of very arid areas, which are far from drainage lines. The density of the rivers' channels in the landscape, and the central role of riparian areas in sustaining life, accord river systems special significance in endeavours to promote sustainable development. In addition, as water drains from the landscape it progressively reflects the prevailing landuse practices, causing impacts downstream. It is not surprising, therefore, that there are growing calls for an integrated approach to water resources management, and water catchments are considered appropriate spatial definitions of management units (National Water Act No. 36 of 1998).

Integrated management is founded on co-operation and because river systems are so densely distributed over the landscape, one can easily appreciate the significance of managing how riparian systems are used in rural areas. Rural management structures and governance are central to achieving co-operation and promoting integrated catchment management.

In large parts of rural Africa, including South Africa, traditional authority systems have dominated the regulation of patterns of resource use. Whilst these structures and their influence have weakened, they remain forces of influence and, therefore, may have the potential to support or disrupt attempts to promote co-operation for sustainable use of river systems (Densham 2002).

This research explores the changes that have occurred in traditional authority systems, structures and governance and how they are currently positioned to contribute to achieving the intentions of the National Water Act No.36 of 1998, namely of:

- meeting the basic human needs of present and future generations;
- redressing the results of past racial and gender discrimination;
- promoting the efficient, sustainable and beneficial use of water in the public

interest; and

 promoting sustainable use of aquatic and associated ecosystems and their biological diversity.

The Salem community, comprising people who were considered to be in a transitional state between rural and urban, were studied to provide insight into the prospects for capitalising on traditional authority systems to promote sustainable use of river systems, at least in rural and semi-rural areas.

CHAPTER TWO

GOVERNANCE, CO-MANAGEMENT AND RESEARCH AIMS

2.1 Introduction

Since the establishment of a democratic government in South Africa in 1994, the state has clearly expressed the intent to engage in co-management with civil society. This is evident in policies and legislation that define and determine the use of existing and scarce resources (Venter 2001). This chapter discusses governance over the use of natural resources as perceived by conventional and indigenous schools of thought. It also addresses the governmental framework that promotes co-management of the use of river resources. It is of particular relevance to this study, to appreciate that the National Water Act No. 36 of 1998, has introduced a new, all embracing definition of the resource to mean river systems as a whole, and not only the water which is conveyed in them. The focus of this study is co-management as it relates to river systems and not only to water that is contained by the river channel.

2.2 Governance and co-management of natural resources

Silitshena and Masacorale (2001) indicate that there is no standard definition of "governance". The term encompasses complex, interlinked and superimposed notions of social, cultural, economic and political processes which combine to highlight state responsiveness and accountability, and the impact of these on political stability and economic development. According to the United Nations Development Programme (UNDP 2000) governance is the exercise of political, economic and administrative authority in the management of a country's affairs at all levels. It comprises the complex mechanisms, processes and institutions through which citizens and groups articulate their interests, mediate their differences and exercise their legal rights and obligations. On the other hand, the World Bank defines governance as the "exercise of political power to manage a nation's affairs" (Mugabe and Tumushabe 1999). Hyden (1992), however, defines governance as "the conscious management of regime structures with a view to enhancing the legitimacy of the public realm". His conception of governance goes beyond the political power exercised by government. Underlying Hyden's statement is a

perception of governance as being a set of norms and values institutionalised at different levels (global, regional, national and local) in order to bridge the gap between the governed and the governors. The norms and values may entail informal policies, laws and rules founded on custom and practice, or formal ones that are codified. It is these institutions, rules, policies and laws that form a regime that binds the governors to the governed. This regime restrains the governors from behaving in a manner that injures the interests of the governed. The governor is made responsive to the needs of the governed (Okoth-Okendo and Tumushabe 1999). Another definition espoused by Lipschutz and Meyer (1996) is that states and civil society interact dialectically, recreating and legitimating each other over and over. The state is engaged in government; civil society in governance. Although many authors disagree on what governance is, Lipschutz and Meyer (1996) contend that four elements are critical in the realisation of governance.

- accountability: this is imperative to make public officials answerable for government behaviour and responsive to the entity from which they derive their authority. This entails political structures, history, cultural milieu and value systems;
- participation: this element is derived from an acceptance that people are at the
 heart of development. At grassroots level, participation implies that
 government structures are flexible enough to offer beneficiaries, and others
 affected, the opportunity to improve the design and implementation of public
 programmes and projects. This increases ownership and enhances results;
- predictability: this refers to the existence of laws, regulations, and policies to
 regulate society, and their fair and consistent application. Predictability is
 important because without it the orderly existence of citizens and institutions
 would be impossible. It entails well-defined rights and duties, as well as
 mechanisms for enforcing them, and settling disputes in an impartial manner;
 and
- transparency: this refers to the availability of information to the general public and clarity about government rules, regulations and decisions.
 Transparency both complements and reinforces predictability. Transparency

in government decision-making and public policy implementation reduces uncertainty and helps prevent corruption among public officials. This implies that rules and procedures be simple, straightforward, and easy to apply.

These elements of governance complement one another, and it is through their interaction that the aspirations of governance could be realised (UNDP 2002).

According to Field-Juma (1996) three principal dimensions play an important role in environmental governance. She cites "citizen influence and oversight, responsive and responsible leadership, and social reciprocities among citizens as critical in environmental governance." The principle of "citizen influence and oversight" is greatly concerned with the extent to which citizens take part in and influence environmental decision-making. This involves taking part in influencing the allocation of environmental resources, acting as watchdogs against environmental abuses, and having legal autonomy and judicial authority to enforce good environmental behaviour. The principle of "responsive and responsible leadership" in environmental issues generally and in managing environmental issues in particular, concerns itself with the extent to which a government or a state generally, is capable of formulating and willing to formulate and implement appropriate measures leading to environmental sustainability (Field-Juma 1996). Such measures should reflect (or respond to) the needs of the civil society in general and citizens in particular. Lastly, the principle of "social reciprocities among citizens" has also been extended to include analysing environmental issues. Ostrom (1990) identifies two systems of environmental governance, namely traditional and modern. Traditional environmental governance is composed of unwritten, informal and systematic taboos, rituals and rules that regulate the interaction between individuals and the natural environment. This entails the evolution of social relationships to manage any conflicts over environmental resources. Field-Juma (1996), observed that traditional environmental governance is established on social systems which:

"...relied upon building reciprocal relations among families and communities, for example through livestock sharing, and with other groups and communities through trade, marriage and advisers. These relations redistributed risk and

strengthened social obligations to be utilized during times of drought, pestilence or war. The land was generally held by the community with fairly clearly defined spatial and temporal use rights allocated to its members..."

Although Field-Juma did not make particular reference to the sphere of rivers, one can easily envisage the importance of reciprocal relations in the use of river resources that can vary so much in time and space.

Traditional environmental governance systems have the following characteristics:

- evolutionary: They emerge from within a social system and grow in a cumulative way. Environmental management knowledge is generated through experimentation, learning and application. Knowledge is passed on to new generations that establish norms and values as well as associated natural resource management techniques;
- responsive and resilient. Traditional environmental governance systems are responsive and resilient to the ecology on which they are based; and
- localized and participatory. Decision-making on issues of natural resources
 management is undertaken at different levels, including informal
 organisations, such as households. This is contrary to modern environmental
 governance systems that vest planning and decision-making in centralised
 government structures (Adams 2001).

On the other hand, modern environmental governance is mainly composed of written and formal policies, environmental plans, legal instruments and informal laws, rules of practice and institutions that explicitly or implicitly impact on environmental management. This conventional model of development has failed many communities, particularly those in the Third World countries. According to Adams (2001), the last two decades of the twentieth century have seen much criticism levelled against the 'top-down', 'technocratic', 'blueprint' approach to development. This approach has failed to deliver economic growth and social benefits that have been promised (Turner and Hulme 1997). Chambers (1983, 1988b, 1997) has argued that development goals could only be achieved by 'bottom-up planning', 'decentralisation', and 'participation' and community development. Stohr (2001) also indicates that 'development from below' demands a

reversal of conventional development thinking, namely working from the 'bottom up' and the 'periphery inwards'. Adams (2001) points that the rise of calls for 'development from below' shows recognition of the value of indigenous knowledge for the livelihood security of many rural people in the Third World. He further indicates that indigenous knowledge has moved from being denigrated and dismissed by planners, to being recognised as a vital knowledge resource. The successful practice of indigenous knowledge partly depends on the tenurial rights local people possess.

Until independence in 1966, Botswana (one of the countries in Southern Africa) was a collection of tribal states each under a chief. The control and management of the environment was in the hands of the chief, who held the land in trust for his people (Silitshena and Masacorale 2001). Land was the principal resource. Tenure was based on two principles:

- Every individual is entitled to land; and
- No one could own land individually.

The management by chiefs remained effective as long as land was plentiful relative to population and livestock. The arrival of borehole technology led to the individualisation of grazing. Attempts by the colonial government to arrest overgrazing failed. Given this background, it is suggested that the tenure system is a critical factor in the comanagement of natural resources (Silitshena and Masacorale 2001).

Lynch and Alcorn (1993) define tenure as a complicated and variable concept, which implies arrangements more subtle than mere ownership. They point out that tenure does not define relationships between people and resources so much as it defines relationships between people and other people. It specifies who may use, who may inhabit, who may harvest, who may inherit, who may collect, who may hunt, under what circumstances and to what extent; it also specifies implicitly who may not. They view tenure as a system which

" in any given situation, is the traditionally accepted (and, in some cases but not all, legally codified) understanding of user-rights, interests, and limits. So tenure is central to the issue of who can and should conserve what resources for whom."

Land is the underpinning resource and the most elementary focus of tenure concerns. It has however, to be noted that water, forests, fisheries, minerals and wildlife also form an integral part of tenure systems (Lynch and Alcorn 1993). All rural communities have their systems of tenure. These systems might be ancient or recently evolved, but are similar in that they derive from direct experience of using, maintaining, and apportioning particular resources. In many cases, particularly among indigenous people, these systems entail communal rather than individual forms of proprietorship (Lynch and Alcorn 1993). Traditional tenure systems do not generally confer exclusive ownership of resources within neatly mapped boundaries. They are not readily compatible with the concept of ownership as codified in developed countries, and as imposed on developing countries during colonial periods (Lynch and Alcorn 1993). Metcalfe (1993) supports this notion highlighting that the only boundary applicable to many traditional tenure systems may be political rather than geographic namely the boundary of participation within the system.

Describing traditional tenurial systems as a form of "institutional capital" because compliance is sustained with a low investment in enforcement, Borrini-Feyerabend (1997) notes that the effectiveness of tenure systems depends on their widespread acceptance and adherance to rules governing access; the strength of local institutions and organisations that administer local justice; and on the guidance of local leaders committed to the values of the system. In traditional societies communal tenure systems include the community to whom the resources belong, the ancestors, the spirits, and the unborn. These resources are part of a unit that includes living things, air, water, land, forest, reefs, and the subsurface space. Rituals often determine the boundaries of the lands and waters belonging to the community. Disputes over "who" has rights to "what resources" for "what purposes" are resolved locally through dispute-resolution mechanisms that evolve as the community changes with time (Borrini-Feyerabend 1997).

At a local level, rules that restrict who uses how much biological resources require effective local social institutions, accepted rights and obligations, and a shared vision for interpretation and action. Traditional ethics support local tenurial institutions using social pressures to influence an individual's decisions and encourage compliance. People vested with authority designed to regulate resource access perform this role. Local curers and diviners also use shared ethics to identify and apply social pressure against those who break the rules (Borrini-Feyerabend 1997).

The refusal by national governments to recognise traditional tenure systems, through the imposition of their own codified systems of resource ownership, poses a threat to traditional rights and culturally enforced limits. This has contributed to the further exploitation of resources and subsequently to their depletion (Metcalfe 1993). Without secure tenure, rural communities have no standing in the decision-making process that determines use or protection of resources. As a result, those communities have no incentive to manage their use of resources to promote sustainability (Lynch and Alcorn 1993). Hill (1993) also noted:

"Local communities have the capacity- and will use that capacity- to destroy conservation efforts if they're not in agreement with them."

Community-based tenure systems usually include a complex mixture of group and individual property rights. The similarity between them and state-created property rights is that they are not absolute and permanently fixed. The distinguishing factor is that community-based tenure systems draw their primary legitimacy from the community in which they operate and not from the nation-state in which they are located (Western et al., 1994). Tenure system forms an integral part of the culture of indigenous people. This is reflected in the fact that tenure system almost always includes both individual and group (or common-property) rights. As a resource becomes scarce, communities often restrict use rights and institute enforcement mechanisms (Western et al., 1994).

According to Murphree (1993) a communal property regime is considered a management paradigm used by many communities in the management of resources. He further notes that any policy that does not embrace this regime will render communities ineffective institutions for resources management. Contrary to the theory of Murphree, is Hardin's earlier theory of the 'Tragedy of the Commons' (1968). This theory which seems to have

lost support, holds that when a number of users have undivided rights in a common resource they tend to compete among themselves to the degradation of resources. On the other hand, Boserup (1965) holds different views that state that both technical and institutional innovation are a viable option in rural areas. The only challenge is to intensify the two so as to realise good resource management. According to Cross et al., (1996) people of KwaZulu-Natal are experiencing the same tragedy in that they are caught between Hardin's argument of the 'Tragedy of the Commons' and Boserup's hypothesis of intensification. It is on these lines that institutions proposed by the Water Act may consider and take account of traditional institutions in their design and implementation of management structures. According to Pretty et al., (1995) Uphoff (1992), Cernea (1987), local control at grass roots level is essential, and they argue that local groups can take on capacity as they solve successive problems. On the other hand Wynne and Lyne (1995) also contend that separate administrative institutions with precise powers of decision and enforcement need to be established, and users need to be listed so that accountability can be ensured. On the other hand, Chambers (1983) warns of projects that are run by large-scale government bureaucracies with less benefit on local communities.

For centuries indigenous knowledge over the use of resources has been successful in maintaining a balance in the extraction of resources (Adams 2001). Under the last South African government, resource management intervention transferred control of local land use to the government through agricultural bureaucracy. Technicist and conservationist planning agendas tended to undercut local land management institutions (Adams 2001). It is this government approach on the management of resource use that roused dissatisfaction and negative perceptions that have led communities to believe in unrestricted management of their own land (Adams 2001).

River systems provide goods such as water for drinking, sand for building houses and fish for consumption; and services such as cleansing and purifying. These goods and services sustain and enhance the quality of life of people. Since each individual values goods and services differently, the challenge of enhancing equity, efficiency and

sustainable use requires a co-operative approach to manage use. At a community level this is determined by community based natural resource management (CBNRM).

Co-management can be defined as a situation in which two or more social actors negotiate, define and guarantee amongst themselves, a fair sharing of the management functions, entitlements and responsibilities for a given territory, area or set of natural resources (Borrini-Feyerabend 2000).

Borrini-Feyerabend (2000) states that the history of co-management is rooted in decades of field-based and theoretical efforts by individuals and groups concerned with:

- equity and social justice;
- sustainable use of natural resources; and
- community-based and community-run initiatives.

Co-management entails:

- a pluralist approach to managing natural resources, incorporating a variety of
 partners in a variety of roles, generally to the end goals of environmental
 conservation, sustainable use of natural resources and the equitable sharing of
 resource-related benefits and responsibilities; and
- the expression of a mature society, which understands that there is no "unique
 and objective" solution to manage natural resources but, rather, a multiplicity
 of different options compatible with both indigenous knowledge and scientific
 evidence, and capable of meeting the needs of conservation and development
 (and that there also exists a multitude of negative or disastrous options for the
 environment and development)

Borrini-Feyerabend 2000).

The emergence of colonial powers and nation states and their self-imposed authority over most common lands and natural resources, resulted in a demise of traditional natural resource management systems. The monetarisation of economic exchanges weakened local systems of reciprocity and solidarity, as did the incorporation of local economies into increasingly more global systems of reference (Banuri and Amalrik 1992). This was enhanced by the rise of the power of modern "scientific" practices that inflicted severe

losses in local knowledge and skills (Banuri and Amalrik 1992). This imposition by these outside forces led to the substitution of community-based trial and error (adaptive management) by the coercive imposition of practices through laws, rules, extension services, the police and the army. It is this "khaki shorts ecology brigade" that has led to the disregard of the tenurial rights of local peoples over natural resources (Murphree 1993). In view of the destabilised nature of local management of natural resources due to the imposition by colonial forces, much groundwork has to be done before comanagement can be put in place. Its implementation should be preceded by an analysis focussing on the evaluation of the existing NRM system. This should involve the *de jure* situations (i.e. those depending on existing laws and norms), and *de facto* situations (i.e. those depending on what actually happens) (Borrini-Feyerabend 2000).

The failure of the blue-print approach in the management of natural resources in the past has encouraged the introduction of an holistic approach that realises the critical role local communities could play in the management of resources. Co-management is regarded as a new paradigm in the management for sustainable use of natural resources, although as shown earlier it has already been deeply rooted in traditional societies. However, it has to be noted that the realisation of co-management is not an easy task to accomplish. As Senge (1999) points out, the key condition is that managers are working with systems. In the context of this research the systems envisaged are the 'people system', the 'river system' and the interface between them. According to Senge (1999) "systems thinking is a discipline for seeing wholes". He regards systems thinking as a framework for seeing interrelationships rather than things, for seeing patterns of change rather than snapshots. He further indicates that systems thinking is crucial because human kind is being overwhelmed by complexity.

2.3 A South African perspective

Presently, the South African government in its attempt to promote equitable, efficient and sustainable livelihoods among its citizens, has promulgated various Acts which complement one another in ensuring that relevant policies are put in place for the betterment of the lives of the people of South Africa (Venter 2001). **Table 2.1** provides

an overview of various Acts enacted by the South African government that have relevance for the use of river resources.

The literature exposes the centrality of co-management and associated governance in the use of rivers, including river related resources, amongst traditional societies. It suggests that should remnants of these traditional natural resource management systems remain significant in present day rural communities, it might be meaningfully incorporated into emerging efforts to promote co-management.

Table 2.1: Main acts affecting use and protection of South Africa's water resources

The Constitution Act 108 of 1996- section 24 of the constitution promotes the environmental right. This section states that 'Everyone has the right-

- (a) to an environment that is not harmful to their health or well-being; and
- (b) to have the environment protected, for the benefit of present and future generations, through reasonable legislative and other measures that-
- (i) prevent pollution and ecological degradation;
- (ii) promote conservation; and
- (iii) secure ecologically sustainable development and use of natural resources while promoting justifiable economic and social development.'

Local Government Transition Act 209 of 1993- In terms of the Act all municipalities, both Transitional Local Councils (TLCs) and District Councils, are required to draw up Integrated Development Plans (IDPs) for the integrated development and management of their areas of jurisdiction. An IDP is intended to encompass and harmonise planning for a range of sectors such as water planning, transport planning, land use planning and environmental planning.

Water Services Act 108 of 1997- provides for the rights of access to basic water supply and basic sanitation and the institutional structures required to provide water.

National Water Act 36 of 1998- provides for the reform of the water law relating to water resources. Also makes provision for the licensing of forest plantations and dryland crops as one of several different kinds of water uses, a successor to the afforestation permit system.

Health Act 63 of 1977- provides measures for the promotion of a safe and healthy environment. It defines the duties and responsibilities of several authorities, which render health services and provide measures for the co-ordination of such health services. The Act deals with the control and management of waste mainly in respect of the protection of human health.

Minerals Act 50 of 1991- regulates prospecting for and exploitation, processing and utilization of minerals; to provide for the safety and health of persons concerned in mines and works and regulates utilisation and rehabilitation of land during and after prospecting and mining operations.

Water Research Act 34 of 1971- established the Water Research Commission in order to promote research in connection with water resources.

Lake Areas Development Act 39 of 1975- provides for the establishment of lake areas under the control of Lake Areas Development Board.

Mountain Catchment Areas Act 63 of 1976- recognises mountain catchments as sensitive areas and makes provision for their conservation.

Conservation of Agricultural Resources Act 43 of 1983- provides control over the utilizatilisation of the natural agricultural resources in order to promote the conservation of the soil, the water sources and the vegetation and to combat weeds and invader plants.

Environment Conservation Act 73 of 1989- provides for the effective protection and controlled utilisation of the environment.

National Environmental Management Act 107 of 1989- provides for co-operative environmental governance by establishing principles for environmental decision-making; identifies institutions that will promote co-operative governance and determines procedures for co-ordinating environmental functions of state departments.

Regulations also mandate environmental impact assessments for various kinds of change in land use, which include afforestation. It also notes "the disturbance of ecosystems and loss of biological diversity is avoided, or where it cannot be altogether avoided, is minimised and remedied..."

National Forests Act (Act 84 of 1998): makes provisions for the development of criteria, indicators and standards for sustainable forest management.

Biodiversity Bill (July 2001)- The objective of the Bill is to provide for the conservation of biological diversity, regulate the sustainable use of biological resources and to ensure a fair and equitable sharing of the benefits arising from the use of genetic resources. The act states that the state is the custodian of SA biological diversity and is committed to respect, protect, promote and fulfil the constitutional rights of citizens.

The Bill requires the identification of landscapes and their natural processes, ecosystems and ecological processes, and species important for the conservation of biological conservation. It also requires the establishment of monitoring procedures to determine the status and trends of such features.

The Bill provides for a national classification system for protected areas and the proclamation and deproclamation of protected areas. The bill also calls for the management and control of alien, exotic and invasive species.

The Bill recognises that SA is party to: The Convention on Biological Diversity, The Convention on International Trade in Endangered Species of Flora and Fauna, The Convention on Wetlands of International Importance, especially Waterfowl Habitat and The Convention on Migratory Species.

Traditional systems of governance have a strong foundation in collaboration. One might speculate that, as such, they would have a positive role in co-management as envisaged by contemporary approaches to managing the use of resources in South Africa (**Table 2.1**).

Given all the water-related Acts (Table 2.1), and the various departments responsible for implementing these Acts, and particularly the emphasis placed on co-management, there is a need for mechanisms to promote collaboration between relevant stakeholders. The National Environmental Management Act (NEMA) aims to improve environmental

management, whilst facilitating sustainable development. The Act:

- provides a framework for integrating environmental management into all development activities;
- establishes principles guiding the exercise of functions affecting the environment;
- establishes procedures and makes provisions for institutions to facilitate and promote co-management and intergovernmental relations;
- establishes procedures and makes provision for institutions to facilitate and promote public participation in environmental governance; and
- facilitates the enforcement of environmental laws by civil society.

In giving effect to the NEMA, the Department of Environmental Affairs and Tourism (DEAT) has established an interdepartmental coordinating committee called National Biodiversity Committee currently chaired by Dr Maria Mbengashe (Chief Director: Biodiversity and Heritage) DEAT. This committee is entrusted with ensuring that, in as far as environmental matters are concerned, there is collaborative support for comanagement (Mbengashe pers. comm. 20 May 2002). However, the Department of Water Affairs and Forestry (DWAF), as the governing agency responsible for equitable, efficient and sustainable use of water resources (NWA), is the lead agency for matters relating to rivers. Since DEAT is signatory to the Biodiversity and Ramsar conventions (Kidd 1997) which have relevance to rivers, it is clear that responsibilities are shared.

The NWA provides a framework for promoting co-management of river resources using catchment areas as a basis. It provides for the development of institutions, for example catchment management agencies (CMAs), catchment management committees (CMCs) and water users associations (WUAs) responsible for managing the use of water and water related resources on a local or wider catchment basis as opposed to the previous management on a national basis.

In South Africa, CMAs have no tested precedent. They will be faced with enormous challenges as they evolve in complex and changing business, social and natural environments and strive to ensure that equity and social justice are achieved within

ecological limits (Rogers et al., 2000). At present much discussion centres on the structure of CMAs and much less on how they should function to facilitate the implementation of the required processes (Rogers et al., 2000). Leverage will come not from 'pushing harder' or 'changing faster', but from learning to recognise and redesign the built-in limits that keep change initiatives from growing (Senge, 1999). According to Rogers et al., (2000) the solution to the challenges facing CMAs is to create 'learning institutions' which combine adaptive operations and generative leadership instead of authoritarian, command-and-control bureaucracies that respond too slowly to survive in changing environments. A learning-by-doing approach should become a prerequisite for effective management. Effective knowledge management is seen as a critical success factor in turning command-and-control management into adaptive learn-by-doing management.

Rogers et al., (2000) point out that, "South Africa is in a unique phase of renewal in which there is unprecedented opportunity to implement lessons already learnt elsewhere in the world". These lessons are not easily implemented in countries where entrenched bureaucracies hinder progress. Gunderson et al., (1995) "We should not waste this opportunity to catch up with, and even pass, other global economies and democracies".

Striking in these views is the notion that we need to set up new institutions. Less evident is the possibility of strengthening existing organisations and institutions so that they can perform better. Traditional authority systems might be one such entity.

The intention of this research is to establish whether Tribal Authorities may play a role in the co-management of river resources. People and these institutions constitute the 'complex system' envisaged by Senge. An initial part of conceptualising this system is the determination of stakeholders.

2.4 Stakeholder analysis

A stakeholder is defined as an individual or group that makes a difference or that can affect or be affected by the achievement of the group's or organisation's objectives

(Freeman 1994, Mitroff 1993, Mitchell *et al.*, 1997). Brinkerhoff and Crosby (2002) cite three criteria that can be used to determine the relative importance of a stakeholder. These are:

- if an actor or group is in a position to damage or weaken the authority or political support for decision-makers or their organisations, this needs to be considered;
- second, if the group's presence and/or support provides a net benefit, strengthens implementing agencies, and enhances decision-makers' authority (and capacity to secure compliance with decisions), then it should be given close consideration; and
- lastly, if a group is capable of influencing the direction or mix of the influencing organisations' activities, it needs to be counted as a stakeholder.

Generally, only those groups with political and social resources that they can mobilise and apply directly for or against an issue are decision-makers. However, it is important to recognise that critical stakeholders may be those without a voice or resources to make their views and desires heard, for example, the poor, women, children, ethnic minorities and so forth (Brinkerhoff and Crosby 2002).

The matrix in **Table 2.2** indicates two key elements critical to stakeholder analysis. Firstly, groups or actors are analysed in terms of the interest they have in a particular issue, and secondly, the quantity and types of resources they can mobilize to effect outcomes regarding that issue (Brinkerhoff and Crosby 2002). Priorities are set among stakeholders in terms of their power (ability to command compliance), legitimacy (extent to which the stakeholder's claims are seen as appropriate and proper), and urgency (the degree to which the stakeholder's claims call for immediate action).

Table 2.2 Stakeholder Analysis Matrix

Group	Group's interest in issue	Resources available	Resource mobilisation capacity	Position in issue
Name of group	Estimate of the level	Summary of resources	Estimate of which	Estimate of the
	of interest of the	held by group or to	resources and how	group's position on
	group in the issue e.g.	which it has access.	easily a group can	the issue, e.g. pro or
	(high to low)	These may include	mobilise in pursuit of	con, or positive or
		financial, information,	objectives.	negative, or nominal
	It is also useful to	status, legitimacy and		or quantitative
	indicate exactly what	coercion)	May be defined as	measures such as +3
	those interests are		high to low or may	to -3.
			use more quantitative	
			indicators such as +5	
			to -5.	

Source: Brinkerhoff and Crosby (2002).

According to Borrini-Feyerabend (2000) it is evident that institutional actors such as government and local community institutions are critical role players in comanagement. While government institutions possess legal jurisdiction over a territory, area or resources, local institutions such as Tribal Authorities have *de facto* influence which is limited, and it is therefore crucial to pursue partnership agreements with other stakeholders (and minimise conflict). Borrini-Feyereband (2000) posits the following conditions as being critical to the realisation of partnership agreements:

- local actors may have historically enjoyed customary/legal rights over the territory or resources;
- local interests are strongly affected by NRM decisions;
- the decisions to be taken are complex and often controversial (e.g., different values need to be harmonised or there is disagreement on the distribution of entitlements over the land or resources);
- the current NRM system has failed to produce the desired results and meet the needs of the institutional actors;
- the institutional actors are ready to collaborate and request to do so; and

there is ample time to do so.

Local communities could advocate a partnership with NRM if their customary practices are failing and an open access system is already in place and has resulted in the unsustainable use of resources (Borrini-Feyerabend 2000).

2.5 Striving for a collaborative approach in NRM

Property rights to resources such as land, water and trees have been proved critical in addressing the poverty-environment problem. These rights encompass a diverse set of tenure rules and other aspects of resource access and use, and govern the patterns of natural resource management (Scherr 1999). This section seeks to underline the importance of property rights, and how, if taken into consideration, co-management could facilitate the implementation of these rights at local level. Secondly, the benefits of a multi-stakeholder collaborative approach in enhancing the proper management of natural resources are considered.

Two natural resource conservation methods have been cited. The first is the provision of conventional protected areas that make little attempt at drawing in local people. The other entails local people as the focal point, and delegates full tenurial rights to them as the managers of natural resources (Hays 1959; Norton 1991). It is this bipolar approach that has been debated by conservation theorists worldwide. The former system has been in place in most developing countries, but has failed many local people who felt excluded and alienated in the management of local natural resources. According to Talbott (1995),

"The tenurial rights of local peoples over natural resources and the role of the state in recognizing and supporting those rights continues to be a paramount issue of development, not only in Nepal, but throughout the developing world. The resolution of the concomitant social, economic and political side issues may well mean the difference between sustainable development and accelerated economic and environmental impoverishment."

The use of co-management in the allocation of tenurial rights is expected to have a significant effect in enhancing rural democratic representation and in helping to curb the perpetual domination of rural people by national structures of governance. In the 1970's, 'top down', 'technocratic', 'blueprint' approaches to development faced a huge challenge as they failed to deliver economic growth and social benefits that had been promised (Turner and Hulme 1997). The rejection of this approach culminated in the introduction of a new model that argued that development goals could only be achieved by 'bottom up planning', 'decentralization', 'process approaches', 'participation' and 'community organization' (Chambers 1983). However, Adams and Hulme (2001) caution that despite the narrative change that has been observed at the level of academic and intellectual debates, it is not a foregone conclusion that such changes in discourse translate directly to changed policies and practices. They highlight that the drastic measures aimed at forcing the 'wrong' fortress conservation out of policy and practice, and the adoption of the 'right' elements of counter-narrative (e.g. community conservation) could be a disastrous action. This sentiment is echoed by Brinkerhoff and Crosby (2002) who indicate that policy implementation is not a revolutionary but an evolutionary process where new laws are introduced in conjunction with existing laws.

According to Lindbolm (1979) management of resources in African countries (as elsewhere) should gradually evolve, rather than change dramatically as conservation narratives do. Similarly, Johnston and Clark (1982) also argue strongly for 'adaptive learning' rather than dramatic policy changes. According to Uphoff (1992) the world is beset by diversity and the complexity of humanity and the unpredictability of social, political and economic futures, and calls for a less adversarial approach to knowledge-creation. This approach should lead to heightened levels of co-operation and trust among stakeholders leading to positive sum rather than zero sum outcomes for the achievement of effective policies. The question is not whether state action or community action is better. In fact, both actions together with private sector support are pivotal. The challenge is how to develop partnerships that could lead to the realisation of effective management of natural resources (Uphoff 1992).

Barrow and Murphree (2001) suggest four characteristics as being critical in upholding collaborative partnerships in the management of natural resources at local level, namely:

- Cohesion: this is a sense of common identity and interest which serves to bring people together for collaborative action, and leads them to differentiate themselves from the others.
- Demarcation: this entails the delineation of a fixed land area and the resources on it. This could be drawn on the basis of socially sanctioned access to given resource categories, for example, pastoralism or fisheries.
- Legitimacy: this assumes that collective organisation requires legitimacy
 for purposes of its processes and leadership, which needs to relate to both
 power and authority. While external authority (government) can confer
 legitimacy that in itself is not a sufficient condition.
- Resilience: this is the organizational capacity to adapt in content and structure. It provides durability to organizations and creates scope for them to improve through processes of adaptive management.

Holling and Meffe (1996) indicate that sustainable resource management must follow an adaptive management philosophy that embraces the attributes of persistence, change and unpredictability. This means that management will have to challenge and evaluate its own hypothesis continuously. Because of complex problems, the solutions are unlikely to be found unless the stakeholders collaborate to share their knowledge and the responsibility of monitoring and responding appropriately. Adaptive collaborative management (ACM) is a conceptual model for how multiple stakeholders can interact to address particular problems (CIFOR 1999). According to Walters (1986) and Holling (1978) an important distinction between conventional "adaptive management" and ACM is the latter's greater commitment to a bottom up approach. Margoluis (2001) also indicates that adaptive management is about systematically trying different actions to achieve a desired outcome. It is not a random trial-and error process. Instead, it involves several specific steps as indicated in figure 2.1.

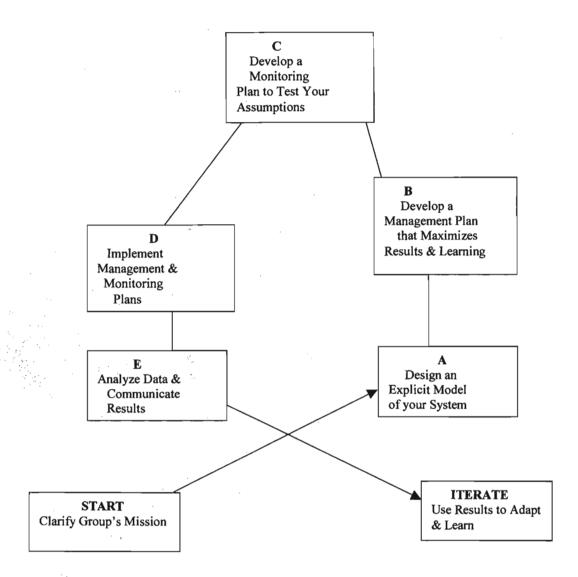


Figure 2.1: The Adaptive Management Cycle Source: Adapted from Margoluis & Salafsky 1998.

This diagram includes the starting point of the cycle determining who will participate and what the overall mission is. Step A involves assessing the conditions and determining the major threats to the project site and the use of a conceptual model. Step B involves using this model to develop a project management plan that outlines the results the team would like to accomplish and the specific actions that the team will undertake to reach them. Step C involves developing a monitoring plan for assessing the progress in implementing the project. Step D involves implementing actions and monitoring plans. Step E involves analysing the data collected during monitoring efforts and communicating the information that is obtained to the appropriate audiences. Lastly, the results of this analysis should be used to change the project and learn how to run projects better in the future. Based on feedback information, one may want to modify the conceptual model, management plan, or monitoring plan (Margoluis & Salafsky 1998).

Lack of property rights in many communities has created uncertainty about their use of resources. Access to and use of resources by various and many stakeholders has led to competition for these resources. It also has to be acknowledged that various stakeholders have different interests in the use of natural resources. Realising these interests requires applying a model such as co-management of natural resources that will bring about equity in natural resource management (Barrow and Murphree 2001).

Tenurial rights are significant in the access and use of resources. This is because of the shift in rights effected by colonial governments from common property to private and state controlled property systems and because the democratic government has replaced rights of ownership of water resources with rights of use. This creates a more favourable environment for co-management. In this environment, both the state as a proponent of *de jure* rights and Tribal Authorities as advocates of *de facto* powers can, through collaboration, play a pivotal role in promoting co-management. The enhancement of co-management could be attained through the revival of traditional common property regimes as practised before the advent of Colonialism, and subsequently apartheid in South Africa.

2.6 Conclusion

The enactment of various legislation by government is critical in ensuring that there is good governance of natural resources. This legal framework creates an opportunity for various stakeholders to participate in the co-management of natural resources. Taking into cognisance both *de jure* and *de facto* rights and determining the role various stakeholders could play is critical in the realisation of proper governance of our resources.

2.7 Research hypothesis

Since the advent of a democratically elected government in South Africa there has been a concerted effort to promote co-management in the use of natural resources. Nowhere has this been more apparent than in the area of water resources. Here, there has also been a fundamental shift in the definition of the resource from being simply regarded as water to the more complex river systems that contain water and produce a range of goods and services valued by society.

Achieving the intentions of government, namely the efficient, equitable and sustainable use of the resource (river systems) rests on bottom up and top down approaches to governance. In significant parts of South Africa, and other African countries, traditional systems of governance are still evident. To the extent they are effective they may provide support for or resistance to the promotion of co-management in the workable use of river systems. Clearly there is an urgent need to gain insight into these institutions and the roles they might play in support of co-management of the use of river systems.

The hypothesis underpinning this research is: Notwithstanding the effects of the colonial government and subsequently the apartheid regime in distancing *Amakhosi* from their subjects, through involving them in the promotion of racial laws. These institutions will continue, at least in the medium term, to hold influence over communities and the manner in which they use resources. These institutions therefore, present opportunities for advancing the intentions of co-management of the use of river resources.

CHAPTER THREE TRADITIONAL AUTHORITIES AND RESOURCE USE

3.1 Introduction

Anthropologists (Hammond 1978) maintain that, in every society, some cultural means must be provided for making decisions on matters that affect the group members' survival. There must be some way of controlling conflict within the society and some way of regulating relations with other societies. This aspect of culture is termed 'political organization' by anthropologists. The basic need for the maintenance of internal order and for the governance of relations with other societies is universal in human societies. The forms and processes by which the need is met range from small, autonomous family bands to populous, interdependent nation-states; from reliance on common custom to development of voluminous legal codes; from intra-familial feuding to atomic war (Hammond 1978). Traditionally, much of African landuse planning was organised by local communities, *Amakhosi*, *Izinduna* and spiritual leaders. These institutions exercise substantial influence and material patronage over communal tribal land (Venter 2001).

Pursuant to traditional landuse planning the following requirements for river resource use are fundamental: it is necessary

- that a (relatively) discrete community exists with a defined relation to particular natural resources;
- that the community's diverse interests (of rich/ poor, men/women, grazers/hunters, etc) be sufficiently compatible;
- that the benefits of collective action outweigh the costs;
- that the community have the capacity to manage the scheme;
- that the community have the capacity to enforce rules among itself and on outsiders; and
- that the community's interest in the environment must be sufficiently compatible with national interests (Pretty 1994).

Traditionally, communities were successful in managing the use of river resources (Pretty

1994). Tribal Authorities and elders were empowered to make decisions on the mode of management. This suggests that traditional management of resources should be revisited if issues like the implementation of the NWA in the management of river resources are to be successfully addressed (Pretty 1994).

3.2 Tribal authorities

Historically, *Amakhosi* (chiefs) have played a central role in the allocation of land in South Africa. This role includes the historical role of the Tribal Authorities and their local politico-ecological impacts (Levin 1996). Many areas in KwaZulu-Natal, and indeed most of rural areas in South Africa, are under the jurisdiction of Tribal Authorities. Lipton *et al.*, (1996) consider that for new roles in resource management to succeed, they should be grounded in history and should give Tribal Authorities scope for capacity development. In Zimbabwe natural resource projects have cited non-political independent churches and traditional healers, working with chiefs as the most effective institutions to link with at local level. It has also been discovered that civil society feels a need to re-establish social cohesion to bring rules and behaviour back into balance, and by doing so to 'cool the earth' (Lipton *et al.*, 1996). The success of managing resource use rests on micro-level institutions such as women's committees at micro-local neighbourhood level under the Tribal Authority structure (Lipton *et al.*, 1996).

The existence of Traditional Authorities in South Africa has had a huge impact on the governance of this country, and as such may have considerable relevance at least in the short to medium term. This chapter considers the distinction between traditional and Tribal Authorities as postulated by some writers. It is also within the framework of this chapter to establish the role and status of these institutions during the pre-colonial and post-colonial period in South Africa. Lastly, an attempt will be made to address the present state of affairs between the ANC-led government and Traditional Authorities, as this is powerful force acting on the future of traditional authorities.

3.3 Distinction between traditional authorities and Tribal Authorities

According to Mvelase (1988) Traditional leaders are those people who have royal lineage and who occupied the structures of a Tribal Authority, while Tribal Authorities are the

Apartheid-developed structures of tribal rule. The former are accepted, although the legitimacy of some is questioned since they were elevated to their present status even though they do not have royal lineage. There are also a number of *Amakhosi* (chiefs) and *Izinduna* (headmen) who were imposed on the people by the apartheid government instead of being chosen by the clan, as it was customary to do in the times before colonialism (Mvelase 1988). However, it has been noted that both concepts, that is Traditional and Tribal are in many instances applied to mean the same thing. This study does not draw a distinction between the two concepts because the sources used in this study have not sufficiently defined the distinction.

3.4 Traditional authorities in the pre-colonial and subsequent eras

In the pre-colonial era a traditional leader governed through a council of villagers who represented the views of the people and reported to the clan what the *Inkosi* had said. The council consisted of village elders, who were recognized by the population as being entitled to represent them to the *Inkosi*. It is in the *Imbizo* (meeting) where, as Mazrui (Sono 1993) postulates, "elders sat under a tree, talking until they agreed." It is in the *Imbizo* that every man (not woman) could express his opinion. It also has to be noted that the weight of opinions expressed depended on the age, status and prestige of the man who expressed it (Sono 1993).

3.5 Traditional authorities during the colonial and apartheid era

In the 1980's, the colonial government set out to reduce the authority of *Amakhosi*. Sanctions on *Amakhosi* gave preference to the government appointed authorities to administer the affairs of the community. Land allocation, a source of the *Amakhosi's* power, was administered by the Traditional institutions (Mvelase 1988). The Bantu Authorities Act of 1951 reorganised 'bantu' authorities into three tiers, namely, tribal, regional and territorial authorities. Traditional leaders dominated all these tiers, with a minority of councillors elected by the people filling other positions. In terms of Proclamation 180 of 1956, which gave effect to the act, the Minister of Native Affairs had the power to depose any *Inkosi*, appoint any councillor and control the treasury (Ntsebeza 1999). According to Southall (1983) the system was formulated "as a device"

for utilizing the indigenous chiefly elites as agents of political control in the reserves."

Traditional Authority in South Africa has existed for centuries. According to Vosloo (1974) the involvement of the institution of Traditional Authorities in the administration of rural areas was already in existence in Natal in the 1930's. When Natal became a British colony after annexation in 1843, the native policy (a term used by the former white government of South Africa to refer to the black indigenous people) in respect of Zulu people was based on a distinction between tribal and detribalised groups. The former were confined to segregated, communally owned reserves under the trusteeship of the government, indirectly ruled by means of traditional tribal institutions (1974). When the four provinces of South Africa, namely, the Cape Colony, Orange Free State, Natal and Transvaal united to form the Union of South Africa in 1910, the use of traditional institutions in the administration of rural areas was inherited from two former British colonies (Cape Colony and Natal) and applied to the whole country (Welsh 1989). It is within these two governments that traditional institutions served as part of the managerial mechanism in rural areas, in the administrative system commonly known as indirect rule (Amtaika 1996).

The proclamation of The Native Administration Act, Act 38 of 1927 gave recognition to chiefs and headmen as the rulers of their tribal communities on behalf of the Union of South Africa. The role of these leaders was extended in 1951 under the Apartheid government which came to power in 1948. It is during the Apartheid era in the 1950's that Traditional Authorities functioned as local government in various homelands, including KwaZulu. To bolster the authority of these institutions, the Bantu Authorities Act of 1951 provided for the creation of Tribal, Regional and Territorial Authorities. According to Welsh (1989) these tribal and ethnic units strengthened what the Apartheid government called 'national states'. These states were later given partial independence in the form of homelands and self-governing states. It is this system that added impetus on the old Traditional Authorities and created new ones so as to enhance the apartheid system. These institutions rendered services ranging from the preservation of law and order, the settling of minor disputes, and the allocation of tribal land held in trust. It is

worth noting that though Traditional Authorities were part of the homeland government (the Apartheid government-created governments that administered various ethnic groups in South Africa), they provided a system of localized government to rural areas. The legacy of these institutions still prevails in the present provinces such as the Eastern Cape, Northern Province and KwaZulu-Natal. It is in these areas that a significant number of rural communities still welcome the existence and authority of these institutions (Amtaika 1996).

The apartheid era has brought a change in the role of Traditional Authorities. While the primary role of the traditional institutions during the British colonial and the Union of South Africa governments was to supply labour, collect tax, settle minor disputes in the communities and distribute land, in the new era they now became administrators in their various territories. They were allowed to create their own legislative assemblies where they were able to pass their own laws according to their customs and traditions (Amtaika 1996). Although the institutions of the Traditional Authorities derived their political hegemony from the pre-colonial society, they acquired their prestige as a result of the imposition of Pretoria's Bantustan policy (Amtaika 1996). The Apartheid government elevated the status of the traditional leaders through remunerating them as civil servants. It is this recognition that helped these leaders to widen their scope in their communities as the legitimate representatives of the indigenous people (Amtaika 1996). Some traditional leaders were reluctant to accept these incentives from the government. This antagonism to the apartheid government policies led to the removal of some of these leaders as occurred with Paramount Chief Sabata Dalindyebo of abaThembu in the Transkei (Southall 1983).

Led by *Inkosi* Mangosuthu Buthelezi, the traditional leaders in KwaZulu welcomed the entrenchment of their leadership under the civil service. In addition to that, Inkosi Mangosuthu Buthelezi wanted the government to clarify the relationship between the Zulu King and the chiefs.

He stated:

Unlike most South African tribes, we had a King in Natal before the advent of the white man. Most people resent the fact that the King is only used whenever there is trouble and they want to have more of say in our affairs (Temkin 1976).

This statement by *Inkosi* Mangosuthu Buthelezi was enough to lay the foundations for the passing of two Acts, namely, The Native Affairs Act, and the Promotion of Bantu Selfgovernment Act. These Acts aimed at "consolidating the laws providing for the establishment of a Commission and of Native Councils with a view to facilitate the administration of Native Affairs." This provided the basis for the establishment of Tribal Councils. Each Tribal Council was headed by the local chief and included local headmen and tribal elders nominated by him (The Native Affairs Act, No. 55 of 1955). This Act applied to other provinces countrywide, and it elevated the status of *Amakhosi* while on the other hand it promoted the Apartheid government strategy of 'divide and rule' (the granting of powers to separate ethnic groups to govern themselves so as not to be involved in joint struggle against apartheid). While Traditional Authorities claim to have legitimacy in the administration of rural areas, it is also possible that the incentives offered to these leaders by the Apartheid regime have some bearing on their quest for more recognition by the present government.

3.6 Tribal authorities: a contemporary perspective

Throughout the history of Traditional Authorities a number of key issues have emerged. These include their relationship with various governments that have been in place in South Africa, and their relationship with legislation that has been passed by these governments. It is necessary therefore, to provide a synopsis of the relationship traditional leaders have had with the African National Congress (ANC) government since the 1994 democratic elections, and how it compares with the relationship these leaders had with the Apartheid government. How has this relationship impacted on the status of traditional leaders in rural areas? Also, this chapter will analyze various acts that have been enacted by the ANC government and the response they received from Traditional Authorities.

South Africa is presently confronted by the problem surrounding the Ubukhosi (the

chieftaincy) and its continued hegemony in rural areas. This is partly caused by existing ambiguity surrounding the concepts of 'traditional' communalism and reciprocity (Levin 1996). These problems are partly the direct effect of the historical restructuring of *Amakhosi*. The development of Bantustan administrative structure (a strategy by the Apartheid government to allocate power, through the creation of black governments, to various ethnic groups as a mechanism to keep the Apartheid regime in power) saw *Amakhosi* being intertwined with the Bantustan system (Levin 1996). The rise of the United Democratic Front (UDF), a political party that existed in the 80's, and the development of civil structures began to challenge the legitimacy and hegemony of *Amakhosi* in rural areas (Levin 1996). *Amakhosi* were largely seen as collaborators with the apartheid regime. While their leadership was questioned, they retained their role as land allocators in rural areas. This was partly because the struggle was led by the youth, who did not prioritise land allocation (Levin 1996).

It is against this background that *Amakhosi* are considered by some authors (Densham 2002) as still exercising the core power dynamics in rural areas. However, their leadership does not go unchallenged. Amid allegations of corrupt practices in land allocation and resource management there is a growing resentment of *Amakhosi* and their Tribal Authority structures. According to Levin (1996) the distortion of customary law as well as corrupt practices have steadily distorted the legitimacy of *Amakhosi*. An interview with a political activist in Northern Province indicated that there is a power conflict between *Amakhosi* on the one hand, and the African National Congress (ANC), and the South African National Civic Organisation (SANCO) on the other at grassroots level (Levin 1996). A quote from an ANC provincial cadre states:

"As the ANC, we do not have a clear position with regards to the chiefs. We are avoiding the issue. It is sensitive in the sense that chiefs are the sole owners of the land. This is why SANCO and ANC structures on the ground are in conflict with the chiefs. The chiefs do not want to part with the land. The question often becomes: who is going to allocate the land for development. In one case, Eskom was ready to embark on a project following negotiations with the people. But when Eskom wanted to implement the project, the chief said he did not know

anything about it." (Interview, February 23 1995 as quoted by Levin 1996).

The political significance of traditional leaders has in recent years been questionable. The establishment of the United Democratic Movement, a political party, and the defection of some members of the Congress of Traditional Leaders of South Africa (CONTRALESA), an organization of traditional leaders, to this new party seems to have been a decisive factor in increasing the significance of traditional leaders in the political spectrum in South Africa.

Former President of South Africa, Nelson Mandela has enhanced relations with traditional leaders through his continued visits to rallies where traditional leaders are honoured guests. The Department of Constitutional Development has voted R32 million for salaries for Traditional Authorities (Ntsebeza November/December 2000). While the present government acknowledges the need for elected local government in all areas falling under traditional leadership, the 1998 White Paper on local government states that, 'Traditional leadership should play a role closest to the people... attending and participating in meetings of the Councils on the needs and interests of their communities.' (Ntsebeza November/December 2000). The White Paper also acknowledges the important role traditional leaders have played in the development of their communities and calls for its continuation.

Whereas government today recognises the role of both traditional and elected leaders, the proportional representation voting system whereby elected members are accountable to their respective political parties rather than their constituency, has distanced local councillors from the people in rural areas. Adding to the dilemma, these councillors have not been provided with transport, equipment and offices from which to operate. This makes it difficult for them to execute their duties. This has tended to alienate elected councillors from the rural communities, and enhanced the role of Traditional Authorities such as *Amakhosi* and *Izinduna* who are easily accessible to the people (Ntsebeza November/December 2000).

To affirm the critical role traditional leaders play at local level in rural areas, President

Thabo Mbeki has agreed to amend the Municipal Structures Act to increase the representation of Traditional Authorities from 10% to 20% of councillors. Traditional Authorities will also be represented at District as well as local, and, in KwaZulu-Natal, at Metropolitan level. The government has also promised traditional leaders that their powers will not be tampered with (Ntsebeza November/December 2000).

Historically, *Amakhosi* have played a central role in the allocation of land in South Africa. Land allocation and tenure has always fallen within the ambit of *Amakhosi*. This involves the historical role of the Tribal Authorities and their local politico-ecological impacts (Levin 1996). Many areas in Kwazulu-Natal, and indeed most rural areas in South Africa, are under the jurisdiction of Tribal Authorities. For new roles in resource management to succeed they should be grounded in history and should give Tribal Authorities scope for capacity development (Lipton *et al.*, 1996).

There are about 10 000 traditional chieftains in South Africa. These people and their institutions exercise substantial influence and material patronage over communal tribal land (Venter 2001). These institutions have been partially accommodated in the Constitution in the form of Advisory Houses both at provincial and national level. In the 1994 democratic elections in South Africa the ANC emerged the majority party. This critical moment in the history of the country was preceded by a last minute deal that ensured the participation of the Inkatha Freedom Party (IFP) in the elections. Part of the deal was that the Zulu king would be the constitutional monarch of the province of KwaZulu-Natal. Also in the deal was the transfer of 1,2 million hectares of land to the Ingonyama Trust, a trust under King Goodwill Zwelithini (Venter 2001).

In an attempt to make some concessions with regard to the status of traditional leaders the ANC government has appointed Nkosazana Stella Sigcawu, a member of the amaMpondo royal family and a member of the Congress of Traditional Leaders of South Africa (CONTRALESA) to the cabinet. Despite this a number of traditional leaders are still pressing for a greater role in the government and in the administration of funds at local government level. After eight years, the ANC-led government is still at loggerheads with traditional leaders with regard to the demands of these leaders (Venter 2001).

Although there are strong demands from traditional leaders that there should be devolution of power in South Africa many of these leaders have been closely associated with homeland governments. These leaders were under strong attack during the Apartheid era from civic organizations and the United Democratic Front (UDF). It is the prevalence of this animosity between traditional leaders and the youth-led organizations that has undermined the status of the former. According to Beinart (2001) despite his youthful rebellion, Nelson Mandela was brought up within the patterns of rural traditional authority, and this was one of the reasons for making a concession to the IFP in the interim constitution on the status of traditional leaders.

Another significant factor in the politics of South Africa was the formation of CONTRALESA in 1987. This organization consisted of traditional leaders strongly linked to the ANC. Before the 1994 elections the ANC was uncertain of the depth of its membership in homelands hence it aligned itself to CONTRALESA (Beinart 2001). After this alignment the ANC reverted to its harsh stance on traditional leaders. This was evident when it did not accede to the IFP demand to retain provincial control over the payment of *Amakhosi*. Since the democratic elections, the government has tried to restrict traditional leaders' control in local government. This was evident in the Restitution of Land Rights Act of 1994, where tribal claims for land were not entertained (Beinart 2001). This was contrary to the powers traditional leaders had during the Apartheid government under the Bantu Authorities Act of 1951 in which the former regime, in order to prepare the homeland areas for self government under Traditional Authorities, granted more power to Traditional Authorities to control the allocation of individual plots of land under the permit to occupy (PTO) and the management of communal areas (grazing, land, forest and so on) (Ntsebeza 2000),

According to Ntsebeza (2000) it seems that in the period after the 1994 elections the anti-Traditional Authorities forces within the ANC were in control, as this group advocated the introduction of municipal areas in rural areas. On the other hand traditional leaders rejected the introduction of these structures. They argued that they should play a central role in rural development. Indeed, they wanted to retain the powers they enjoyed under Apartheid. Despite these frustrating developments *Amakhosi* have not given up their position. New local government structures have been difficult to establish. In a statement showing disgust within the ANC government *Inkosi* Phatekile Holomisa, who is also an ANC Member of Parliament stated that 'we are the guarantors of the rights of our people.' The power of *Amakhosi* seems to be growing. The forming of closer links between CONTRALESA and Inkatha aligned *Amakhosi* evidences this (Ntsebeza 2000). In showing his support for Traditional Authorities the ANC Eastern Cape Premier Stofile, argued that royalty is a universal phase in human experience, and it should be embraced by democracy and development (Ntsebeza 2000).

The President of South Africa, Thabo Mbeki, has also on several occasions stated that the role of traditional leaders in rural areas is significant, and that the implications of undermining their institutions could be adverse (Ntsebeza 2000). In many African countries, regional or ethnic competition for power and resources after independence undermined nationalist movements and led to conflict. Having experienced colonial-boundary making, South Africa nevertheless still exhibits pre-colonial identities and languages. These remained significant in 1994 and have been reasserted at cultural level. An example of this is the Nama people in the Northern Cape (Ntsebeza 2000).

While the struggle for a democratic form of government has been won in South Africa, it seems the battle for the recognition of the powers of *Amakhosi* is still far from being won. The implementation of local government through councilors in rural areas is being challenged by Traditional Authorities who believe that they should be the sole wielders of power in these areas. Do traditional leaders have the power to challenge the legality of government's proclaimed laws on local government?

3.7 Legislation and the state of Amakhosi in South Africa

Section 211 of the Constitution of the Republic of South Africa, Act No. 108 of 1996, recognises the concept of Traditional Authorities. This section states that the national Legislature may provide for a role for traditional leadership as an institution at local level on matters affecting local communities (Venter 2001). A provision was also made in the Constitution for the House of Traditional leaders with an official advisory capacity. This was instituted in six provinces. In 1998, legislation on local government elections was

passed. Although this legislation is in place, research in some former homelands indicate that a form of tribal authority still operates, which even allocates communal land, as no adequate alternative mechanism has been put in place (Beinart 2001). In areas where the new boundaries for local government districts were set, as stipulated by legislation, these were also contested by CONTRALESA, which saw this as 'a political trick' because they cut across old areas of authority thus interfering with the authority of Traditional Authorities (Ntsebeza 2000).

The Local Government Transition Act, Act No. 209 of 1993, as amended from time to time also had a significant influence on local government (Venter 2001). Together with the Local Government Municipal Electoral Act, Act No. 27 of 2000, this Act was in the spotlight in the December 2000 local government elections. Traditional leaders put pressure on the government to entrench their powers in fear that such powers would be lost once these leaders became part of the new municipality (Ntsebeza 2000).

In addition to various Acts that impact on the hegemony of traditional authority in rural areas, the NWA seeks to provide for fundamental reform of the law relating to water resources. Subsection 12-20 of Chapter three of this Act states that the protection of water resources is fundamentally related to their use, development, conservation, management and control. In addition, Subsection 77-90 of Chapter seven provides for the establishment by the Minister of Water Affairs and Forestry of catchment management agencies whose mandate is to delegate water resource management to the regional or catchment level and involve the communities thereof (NWA). Although these Acts are yet to be implemented, it remains to be seen whether they will have a positive reception in rural areas. This is on the premise that Traditional Authorities opposed their exclusion from local government and their loss of authority. They argue that they should play a central role in rural development. These leaders want to retain the powers they enjoyed under Apartheid (Ntsebeza 2000). The study conducted in Salem, a peri-urban area in KwaZulu-Natal has sought to establish the role Tribal Authorities play in river resource management and the possible impact the de jure powers of government have on the Tribal Authorities' hegemony in these areas. Also critical in river resource management are Izinyanga (traditional healers) and Izangoma (diviners).

Izinyanga and Izangoma are custodians of indigenous knowledge. It is thus crucial to understand indigenous knowledge as a guiding paradigm for values and ethics pertaining to accessing and controlling river resources at local level. Many studies (IIED 1997; Campbell et al., 1997) have indicated that non-market values of rivers such as rain-making functions, water retention, inheritance value, aesthetics, shade, initiation sites, sacred areas, and the prevention of soil erosion are rated highly by rural communities. In some cases these functions may be ranked higher than direct use (Campbell et al., 1997). A study conducted in Namibia has indicated that the high value that rural communities place on the mere presence or existence of game is in some cases, as important an incentive for conservancy formation as the direct returns from tourism and safari related activities (Jones 1999). These non-consumptive values are important for social, cultural, economic, and ecological sustainability.

According to Murphree (1993) people seek to manage the environment for two reasons: firstly, because the management of natural resources plays a huge role in improving their livelihood. Secondly, environmental degradation is perceived to be threatening a lifesustaining process, and is also a threat to people's aesthetic values. It is also pivotal to note that people seek to manage the environment when the benefits of management are perceived to exceed its costs. Natural resources can be held under one of the four property rights: namely, Open-Access; Communal Property; Private Property; and State Property. These determine who the managers are. Two of these rights have been widely used by indigenous communities. The Open Access condition means that resources are the property of no one in particular and are available to anyone and everyone. The Communal Property refers to a situation where an identifiable group controls the resources, for example, an *Inkosi* or his assistants, and the spirit mediums. There are rules that determine who may use the resources and how they should be used. This is a management regime, which decides on access to, or exclusion from, proprietorship of natural resources (Berkes and Farvar 1988). The institutional structure of the resource management should be primarily co-ordinative and regulatory. A small and practicable unit of proprietorship within ecological and socio-political constraints should manage this. A Communal resource management regime is enhanced when it is small enough for all members to participate in and benefit from (Berkes and Farvar 1988). This suggests

that a 'cohesion' group (a community) under a legitimate authority (Traditional Authority) might be considered an appropriate resource management regime for sustaining river systems.

According to Gleick (1993) the international community has much to re-learn from traditional water management experience. He cites small-scale, indigenous systems as being often more effective at meeting community needs without the large unexpected impacts of large-scale developments. Community-level participation in water supply development and management often leads to other economic, educational, or health benefits as well. In line with Gleick's sentiments, the Department of Water Affairs and Forestry (DWAF) envisions the use of water to be made carefully and productively for economic activities, which promote growth, development and prosperity of the nation. Also espoused in the vision is a people who understand and protect natural resources to make these ecologically stable and safeguard them for current and future generations (Water Sewage & Effluent, October/November 2000). Catchment management is currently considered to be the most appropriate way to manage South Africa's water resources in order to ensure sustainability. According to Seetal (2000) there is a problem in getting all stakeholders to participate actively in the process and give substance to pieces of allied legislation through co-ordinated action. Two problem areas have been identified; namely the political and the operational.

Success at the political level is attained either through consensus or by political neutrality. It is further noted that political obstruction has not been a factor in cooperative governance in KwaZulu-Natal, essentially because the political neutrality of the catchment management processes has been a priority. On the other hand, operational-level problems are usually more difficult to overcome. Firstly, lack of resources and capacity have proved a hindrance. To counteract this obstacle requires careful strategizing, is time and resource consuming and requires persistence. According to Seetal (2000), in order to solicit the active participation of institutions and officials in catchment management the following approach has been developed:

Step1: identify common benefits and unifying themes as a basis for co-operation; and

Step 2: know the critical success factors and flaws.

The realisation of this approach rests on DWAF's leadership. It must act as a catalyst, and not coerce other stakeholders into catchment management structures. Problems arise in the context of river basin management because of the implication that land use is going to be regulated. This is sensitive in South Africa because of forestry, but in many other contexts, there is similar sensitivity because of the fear that catchment management will mean a greater regulation of land use (Water Sewage & Effluent, June/July 2000). According to Ashton (2000) addressing the following institutional issues should precede the successful implementation of Integrated Water Resource Management (IWRM):

- agency structures and staffing profiles should be appropriate for the scale and complexity of the tasks to be undertaken;
- appropriate administrative processes should be selected to match the scale of the catchment to be managed;
- the feasibility of the Catchment Management Agency's business structure must be assessed against appropriate technical, financial and equity criteria;
- there should be absolute clarity around the role and responsibility of the Catchment Management Agency in terms of prevailing legislation and local regulations;
- firm guidance should be available in the form of operational procedures and technical guidelines to facilitate implementation of the IWRM; and
- The roles and responsibilities of relevant Provincial and Local Authorities in the catchment management process have been clearly defined.

The forces of globalization have played a huge role in the control and access of river resources through the promotion of western-oriented principles. Tribal Authorities' particular relevance to this study is that they operate at defined and relevant scales for which there currently seems to be no other authority. Also Traditional Authority administration processes do indeed match the scale at which they could oppose or support co-management.

3.8 Conclusion

Promising as it may be, the implementation of the Water Act is a daunting task. Goods and services provided by rivers in rural areas have in the past been controlled and managed by Tribal institutions and various other traditional institutions such as spirit mediums and *Izangoma*. It is these institutions that have been the hallmark of the promotion and sustenance of cohesion, control and the mainstream of indigenous knowledge. Given this scenario, the success of the implementation of the Water Act rests on a collaborative approach between the government and communities at local level. Current wisdom indicates that *Amakhosi*, being authorities in rural areas, could play a significant role in river resource management, as they are custodians of law and order in these areas. It is speculated that their inclusion, together with other traditional institutions, in Catchment Management Agencies (CMAs) could spearhead collaboration and the implementation on local scale and thereby promote proper management of our river resources for the benefit of the present and future generations. This notion is tested in the Salem community.

CHAPTER FOUR

A STUDY OF THE SALEM COMMUNITY

4.1 Introduction

Chapter Two used a review of literature pertaining to governance and co-management to develop the hypothesis that notwithstanding the effect of previous governments and the contemporary approach, Tribal Authorities still exercise influence in rural areas. This analysis led to the definition of the following research aims, namely to:

- Identify the role Tribal Authorities could play in the implementation of the Water Act as a vehicle for the sustainable management of river systems.
- Identify strengths and weaknesses of Tribal Authorities in the sustainable management of our river systems.
- Provide insight which could help the implementation of the co-management of river resources; and
- Provide an analysis of various impacts brought about by colonial, apartheid and contemporary government on the role of Tribal Authorities in resource management.

To take the analysis further, Chapter Three assessed the historical and contemporary relationship between Traditional Authorities and resource use. These findings supported the hypothesis that despite the decline of Traditional Authorities they might still hold sufficient influence to warrant consideration in co-management of river systems.

The purpose of this chapter is to provide preliminary findings from a community that is located in a peri-urban environment in proximity to a river system

4.2 The study area

In order to determine the role Tribal Authorities play in access to and control of river resources, Salem (Figure 4.1) was considered ideal for a case study. This area is in a state of transition from a rural to an urban one, and adjoins the Umlazi River. Salem is a community undergoing change. It is responding to the influences of urbanisation and westernisation. This occurs most particularly among the youth who are continually

exposed to these influences in education, communication and recreation. Its location between two major metropoles (Durban and Pietermaritzburg) positions it favourably for its residents working in these centres and nearby Hammarsdale. Like most peri-urban settlements it draws inhabitants from surrounding rural areas and further afield. Therefore, this study assumes that this is a community of varied allegiances and values. Some residents might identify strongly with traditions and, particularly, have allegiance to the tribal system of authority and governance. Others, perhaps the youth, might display a less strong connection with tradition and traditional authority.

This area was selected for the case study because it is an area in transition. The advantages of a transitional rather than rural or urban case study is that it provides an opportunity to reveal the extent of change, and who changes more quickly. This assists in the identification of 'targets' should it be determined desirable to attempt to intervene by, for example, strengthening the role played by Tribal Authorities in river system management.

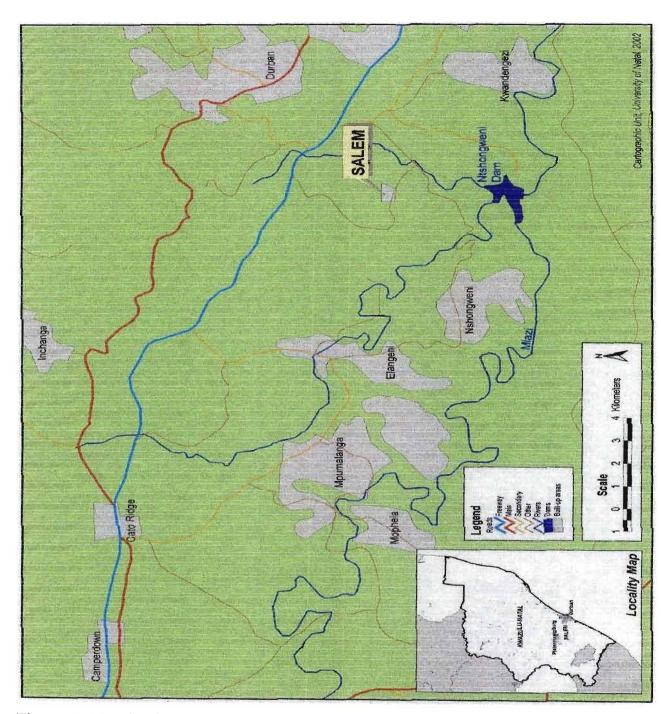


Figure 4.1: Map showing the study area and various Traditional Authorities in the Durban Metro

Salem is situated between the two biggest cities in KwaZulu-Natal. These cities are Durban and Pietermaritzburg. This is a semi-rural area with a population of about twenty thousand. The illiteracy rate is about thirty five percent. Seven sections constitute this area. These are Ewawa, Emagezeni, Ediphini, koNtinga, kwaGede, Emangabazini and KwaDlanyangene. Some of these villages are far from the river, and not all people living in these areas use the river (Sfiso Ntinga pers. comm. 6 December 1999).

In the 1940's a farmer owned the land but due to the people's demand to reside on this land, the farmer ceded the land to the local chief. The chief then allocated land to his subjects (Sfiso Ntinga pers. comm.6 December 1999). There was low population and each household had access to two or more hectares. There was, however increasing influx which led to the occupation of more and more uninhabited land. Nonetheless, there is still land available for agriculture. This land is occupied through Permission to Occupy (PTO) authorisation. This means that the community as a whole has the right to occupy the land but they do not have a right to ownership, as this land belongs to the Ingonyama Trust (a land trust stipulating that all land under Traditional Authority in KwaZulu-Natal falls under the ambit of the King of the Zulu's) (Sfiso Ntinga pers. comm.6 December 1999). The Salem area is under the control of *Inkosi* Shozi. He presides over *Izinduna* who are responsible for the running of daily affairs in this area. Some of the powers allocated to Izinduna are the allocation of sites to various people who come to live in this area. It is also the duty of Izinduna and Inkosi to settle disputes among members of the community of Salem. Some of the responsibilities of Inkosi and Izinduna are the management of access and use of resources such as cutting of trees for building houses and harvesting of sand along the banks of the Umlazi River.

This study is predicated on the hypothesis that control over the people and hence also use of river resources is not clearly defined. This could be attributed to the arrival of new settlers from other areas. It could be argued that these settlers do not support Traditional Authority, or they still pay allegiance to their leaders in their places of origin because they are not accustomed to the authority of Tribal Authorities. The urban influence prevailing in this area and the management of some of the resources by outside

institutions is also affecting the hegemony of Amakhosi over the use and access of resources.

While this traditional system is prevalent in KwaZulu-Natal, its strength varies from one area to another. As a semi-rural area, Salem also experiences the influence of municipal authority. This authority exists side by side with the Tribal Authority system. Densham (2002) postulates that "Processes of urbanisation have undermined traditional practices and rules on the urban peripheries..." People who migrate to urban areas for work purposes are exposed to and may become involved in urban politics. It is this urban setting that promotes non-traditional systems of political thought and analysis (Densham 2002). The peri-urban nature of Salem is potentially of great significance in determining the hegemony and strength of a Tribal authority system.

Benefits derived from the eThekwini Metro are services such as water and electricity. While these services are significant to the community of Salem, they potentially diminish the influence of the Tribal authority and also local people's dependence on river system resources. The Salem community is in transition from being rural with strong traditional allegiance to being urban with western style municipal government. As such it offers an opportunity to assess the potential for using traditional authority to promote management of river systems.

4.3 Survey results

4.3.1 Introduction

The argument presented in earlier chapters led to the hypothesis that if people are shown to retain a clear relationship with rivers, whether through direct use of goods and services or through indirect or non-consumptive benefits such as beliefs, and if the use of rivers is related to traditional system of governance, then an opportunity exists to promote comanagement of rivers. To test this hypothesis a study was made of the Salem community. As indicated in Chapter Five, this is a community in change and therefore provides an indication of the likely trend and opportunity for many Tribal Authorities together with the users of these resources, to promote co-management.

4.3.2 Biographic Data

4.3.2.1 Age and Gender

In Chapter Two, evidence was presented suggesting that there is a weakening of the legitimacy of Tribal Authorities and of allegiance to them by community members and it is suggested that the influence of westernisation and urbanization is the primary cause of this. One might anticipate that older people, less affected by this process would exhibit more conservative views, and have allegiance to the Tribal Authority. For this reason it was important to sample different age groups. According to Densham (2002) leadership, authority, inheritance and succession are the prerogative of men. However, women have not been completely deprived of rights. Traditional systems of land-use rights have granted women a degree of access to land-use rights (Densham 2002). African communities are subject to gender stratification. River resource use and management may also reflect gender division. It is on the basis of this stratification that the sample for this study constituted both female and male respondents

A total of 43 respondents were interviewed. These respondents were divided among age groups. The first group consisted of ten respondents whose ages ranged from 15 to 25. The second group consisted of ten respondents whose ages ranged from 26 to 35 years. The third group consisted of six respondents whose ages ranged from 36 to 45 years. The fourth group consisted of seven respondents whose ages varied from 46 to 55 years. Lastly, ten respondents whose ages ranged from 56 and above were interviewed. These respondents were also divided along gender lines. Ages 15 to 25 consisted of 5 male and 5 female respondents. Ages 26 to 35 consisted of 2 males and 8 females. Thirdly, ages ranging from 36 to 45 consisted of 1 male and 5 females. The fourth group whose ages ranged from 46 to 55 consisted of 2 males and 5 females. Lastly, respondents whose ages ranged from 56 and above comprising of 6 males and 4 females were interviewed. This categorization is illustrated in **Table 4.1.**

Table 4.1. Categorization of respondents according to age and gender

Different Age Groups	No. of respondents	Percent	Male	Female
15-25 years	10	23%	5	5
26-35 years	10	23%	2	8
36-45 years	6	14%	1	5
46-55 years	7	16%	2	5
56 and above	10	23%	6	4
Total	43	99%	16 (37%)	27 (63%)

Out of a total of 43 respondents 63% were women. The migration of men to urban areas to seek employment contributes to this imbalance in rural areas in South Africa. Also of significance is the fact that this is an area in transition from being a rural one to a periurban one. One of the features of either the urban or peri-urban setting is that both adult members of families may be workers. This is reflected in the sample where 23% youth were interviewed. It is also notable in the sample that 23% of respondents were the aged. These are members of the community who may no longer be working, so it is likely that there were more interviewees in this age group.

Taking into cognisance that this is an area in transition it was proper for the sample to entail various age groups. The reason was that it is likely that the younger generation does not have as strong an allegiance to the Tribal Authorities as the more elderly, who still hold on to the belief that Tribal Authorities have to be respected at all times. On the gender issue women spend more time in the households than men. The latter have always worked in cities as part of a migratory work system. It is on this basis that one could find different views in regard to the use of the river. However, this sample has a balance of both men and women. This is influenced by the transitional nature of this area where both male and female sections of the community may be employed. This is reminiscent of both the westernization and urbanization trend that prevails in Salem.

4.3.2.2 Length of stay in the area

Because this study was conducted in a community in transition, it was desirable to establish from respondents the length of their stay in this area. This question was also

prompted by the fact that it is likely that those members who have stayed long in this area could possibly have stronger links and allegiance to the Tribal Authority than recent arrivals. **Table 4.2** illustrates the interviewees' length of stay in the area.

Table 4.2. Length of stay in the area

Years lived in the area	Number of Respondents	Percent			
10 and less	19	44%			
11-20	2	5%			
21-30	10	23%			
30 and above	12	28%			
Total	43	100%			

A total of 44% (19 out of 43 respondents) indicated that they have lived in Salem for a period of less than 10 years; 5% of respondents indicated that they have lived in the area for more than 10 years but less than 20 years; and 23% of the respondents indicated that they have lived in the area for over twenty years and less than 30 years. Lastly, 28% of respondents have lived in the area for more than 30 years. This sample indicates that almost half of the respondents have lived in the area for less than 10 years. Also indicated in this sample is that almost half of the respondents have lived in the area for more than 20 years. This indicates that the 'new' and 'old' residents were adequately represented in the sample. Clearly some of those who have lived in the area for shorter periods are the youth. Nonetheless, if they have grown up in an environment where Traditional Authority is respected, they are likely to be influenced by it.

As a community in transition, the residents of Salem have access to services that are provided to urban residents. Table 4.3 provides an indication of various sources of drinking water for this community. As a confirmation of the transitional nature of this area this community uses both pro-urban and pro-rural sources of drinking water.

Table 4.3. Various sources of drinking water for the Salem community

Sources of drinking water	Number of respondents	Percent
Tap in house	10	23%
Communal tap	10	23%
River	0	0%
Protected spring	6	14%
Rain tank	5	12%
Bore hole	5	12%
Well	7	. 7%
Total	43	100

The results affirm the transitional nature from rural to peri-urban, of the Salem community. 23% of respondents have access to potable water through a tap in the house; 23% of respondents use communal taps. 14% of respondents use a protected spring; 12% of respondents use rain tanks; 12% rely on boreholes; and 7% of respondents use a well. None of the respondents uses the Umlazi River water as a source of drinking water.

The results indicate that the community of this area does not rely on Umlazi River as its source of water. This independence from the need to use the river for everyday water suggests a weak association with the river in terms of water supply.

4.3.3 Proximity to the river

It is postulated that the further people live away from the river the less likely are they to use its resources. On the other hand, those that live close to the river might be frequent in their use of the river. It is on the basis of this assertion that proximity of various respondents' homesteads to the river was considered important. Seven villages occur in the area, as indicated in Chapter Five.

4.4 Perceptions of homesteads' proximity to Umlazi River

Distance between individual's homes and the river	No. of respondents	Percent
Very far	3	7%
Far	8	19%
Not far	16	37%
Close	16	37%
Total	43	100%

Responding to the question, 37% stated that they live close to the river; 37% indicated that they live not far from the river; 19% indicated that they live far from the river; and 7% indicated that they live very far from the river.

These findings might suggest that about a quarter of the respondents, those who consider that they live far, or very far, from the river, would consider carefully before journeying to the river frequently.

4.3.4 Change in frequency of the use of the Umlazi River

Chapter five will highlight that as a community in change, members of the Salem community may exhibit changes in their allegiance to Tribal Authority and a shift away from traditional practices such as the use of the river for various cultural purposes. One can reasonably anticipate that as services to the community improve, its dependence on the river for material resources might decrease. Also, as western culture replaces traditional culture dependence on the river would in all probability decrease.

When respondents were asked about change in frequency of use of the river (**Table 4.5**) about one half indicated no change whilst a quarter disclosed that they use the river less frequently.

Table 4.5. Perceptions of change in the frequency of the use of Umlazi River

Change in frequency	No. of respondents	Percent	
No change in frequency	22	51%	
Decrease in frequency	11	26%	
Do not know	10	23%	
Increase in frequency	0	0	
Total	43	100%	

A total of 51% of respondents indicated that there is no change in the frequency of the use of the river. About a quarter of respondents (26%) indicated that there is a decrease in the frequency of the use of the river. Another quarter (23%) indicated that they do not know whether there is a change or not. No respondents indicated that there is an increase in the frequency of the use of the river. What is important about this finding is that even

though this is a community in transition from a rural to urban setting, a large number of residents still use the river.

4.3.5 Use of goods and services

Given the transitional nature of the community, one might assume that some of the activities relating to river use have waned due to the influence of both westernisation and urbanization. Also one could assert that age and gender have an impact on the use of services and goods provided by the river. **Table 4.6** gives an indication of age and gender in relation to the use of goods and services provided by the river.

Table 4.6. An indication of age and gender in relation to the use of goods and services provided by the river. Note: respondents could indicate more than one use.

Age class	15-2	5	26-35	5	36-45	5	46-55		56 and	over	Sub	total	Total
Number of respondents	10		10		6		7		10		16	29	45
Gender number	M	F	M	F	M	F	M	F	M	F	M	F	
	5	5	2	8	1	5	2	5	6	4	16	27	
Uses					•								
Bathing	4	6	4	4	3	4	2	3	2	2	15	19	35 (81%)
Washing clothes	1	5.	1	5	0	6	0	7	0	0	2	23	25 (58%)
Recreation	4	2	4	4	2	3	2	2	2	1	14	12	26 (60%)
Drinking for livestock	3	3	2	3	1	3	1	2	I	1	8	12	20 (46%)
Traditional ceremonies	4	5	3	2	2	3	2	3	3	4	14	17	32 (74%)
Building material	3	5	3	5	2	2	2	3	2	2	12	17	29 (67%)

Prospects for promoting sustainable use practices reflect both the frequency of use of resources as indicated above, and the manner in which goods and services are used. Respondents indicated six uses, four of which (bathing, washing clothes, watering livestock and building materials) are directly related to sustaining livelihoods. The two activities, recreation and traditional use of reeds ceremonies have more to do with spiritual and psychological well being than with livelihoods. These have less prospects of

being replaced, particularly those related to traditional ceremonies. Respondents in all age groups referred to the use of the river for traditional ceremonies. In the age group 15-25 years nine of the ten respondents (90%) use the river for these purposes. The lowest number (50%) was for the 26-35 year age group, particularly for women. Generally, however, men and women are equally reflected among responses. Recreation use was also reflected across all of the groups and although generally lower, 60% of respondents, 14 males and 12 females were represented among responses. The only activity that reflected a disparity in gender was the washing of clothes. Only two men engaged in this activity whilst 23 (85%) of the women in the sample use the river for this purpose.

Based on these results one can conclude that despite belonging to a community in transition, the residents of Salem still rely on the Umlazi River for various goods and activities that this river provides. This association with the river provides a foundation on which to construct participation in managing it for sustainable use.

4.3.6 Control over access to the river

In Chapter Two it is indicated that historically Tribal Authorities have played a vital role in the management of resources, including river resources. One can reasonably posit that as custodians of indigenous culture, inhabitants would still feel their influence, as they seek opportunities to use the river and its resources. **Table 4.7** indicates perceptions of control over their access to the river and its goods and services.

4.7 Perceptions of the presence of control measures in relation to access to river goods and services

Control measures in accessing the river	No. of respondents	Percent
No control measures	34	79%
Do not know	9	21%

An overwhelming 79% of the responses indicated that there are no control measures in place for accessing the Umlazi River. The remaining 21% appeared not to know if there were control measures in place for accessing the river. Based on this finding one could conclude that there are no control measures for accessing the Umlazi River, or they are

not operating. In either case, the foundation for institutional control appears to be weak.

4.3.7 Perceptions on the consequences of weak control

Evidence provided indicates that there is little or no control over access to the river and its resources. On this basis it can be argued that uncontrolled use may be perceived to have negative consequences for the river. Of this one might anticipate that there would be a 'level of discontent' that might serve as a foundation on which to construct community involvement in managing resource use. When asked to indicate how they were being affected by the lack of control over access, the respondents had the following responses.

More than half of respondents indicated that little or lack of control over the use of the river and its resources has a negative impact on the activity of washing clothes. In regard to bathing more respondents indicated that lack of control measures has an effect on this activity. A different response was given in regard to drinking water for livestock, with 58% of respondents indicating that lack of control measures on the use of the river and its resources does not have an impact on drinking water for their livestock. Mixed responses were provided on the impact of little or lack of control measures on the river use and its resources on traditional ceremonies. A total of 30% of respondents indicated that lack of control measures has no effect on the practising of traditional ceremonies, 32% of respondents indicated that lack of control measures on the river use and its resources has a negative effect on the practice of traditional ceremonies in the river. Some respondents appeared to have no view on this activity whilst 32% of respondents claimed to use the river for traditional practices, only 27% responded to whether control or lack of it has an effect. The responses provided by the residents of Salem indicate that this community is concerned about control measures with regard to the use of Umlazi River. This concern provides an opportunity for establishing citizen participation in the management of resource use.

4.3.8 Control measures in relation to access to the river-institutional perception

Community transition is also evident in the existence of both orthodox and westernoriented and indigenous institutions. The diverse nature of institutions existing in Salem could also contribute to efficiency of control. Respondents representing various institutions were asked whether there are control measures in place that regulate access to the river and its resources.

Table 4.8. Perceptions of institutions on control measures on accessing the river

Types of institutions	No. of respondents	Response provided
Inkosi	1	No control
Induna	1	No control
Izangoma	3	No control
Umthandazeli	1	No control
Religion	3	No control
Health sector	2	No control
Education sector	2	No control

The first four institutions are indigenous institutions, and respondents indicated that there are no control measures in place for the river use and its resources. This is despite attempts, as *Inkosi* Shozi claimed, to hold meetings to address this problem. Three *Izangoma* who were interviewed indicated that lack of control measures in place affects their activities in the river, as they rely on the river to communicate with *Amadlozi* (ancestors), and heal their patients. In the non-indigenous sector, three priests from different denominations were interviewed, and they all indicated that there are no control measures with regard to the river use. Two nurses who were interviewed indicated that there are no control measures, and that could lead to the spread of diseases, as uncontrolled access could lead to pollution. Two teachers interviewed also indicated that there are no control measures in place.

Based on the sample it is evident that the Salem community uses the Umlazi River's goods and services. However, this is a community in transition. This transition has impacted on the role of Tribal Authority in this area. This has impacted negatively on the power this institution has to command in Salem. Also critical to the Salem community are services such as tap water that are provided by the Durban metropole. These services are enhancing the transformation of this area to a peri-urban one thus weakening the power of the Tribal Authority over river resource management as more people rely on

other sources than the river for water consumption.

All respondents indicated that there are no control measures in accessing the river. This concern could form a basis for a need to promote co-management as a viable option for river resource management. It is on this basis that Tribal Authorities could play a major role in controlling access and use of river resources, as they have traditionally acted as custodians of river resource management through ensuring that laws governing the use of these resources are adhered to.

CHAPTER FIVE

CO-MANAGEMENT OF RIVER RESOURCES: PROSPECTS

5.1 Introduction

The purpose of this chapter is to consider an integrated system for co-management that might accommodate a role for traditional authorities. This chapter is in two parts: the first examines the approach promoted in the catchment for the past five years, and the second develops an approach based on the findings of this research.

5.2 The contemporary approach

The Farmer Support Group (FSG) has been promoting catchment management in the study area. It is pertinent to this research to review the approach that has been adopted in the Ntshongweni Catchment Management Programme (NCMP) (Auerbach 1999).

5.2.1 The Ntshongweni Catchment Management Programme (NCMP)

The NCMP is funded by the Water Research Commission, and operates under the University of Natal's Farmer Support Group (FSG) (Auerbach 1999). The purpose of the NCMP is to promote integrated catchment management and water harvesting. This programme has attempted to bring together commercial foresters, large-scale commercial farmers, small-scale commercial farmers, conservationists, industrialists and urbanised communities in an alliance (Auerbach 1999). Its goal is to develop a framework for participatory catchment management in South Africa.

5.2.2 The seven sub-catchments

The Umlazi catchment is divided into seven sub-catchments. There are pollution hotspots in some of the subcatchments that pose a threat to environmental sustainability in the whole catchment. The upper catchment has large-scale commercial forestry, grazing, sugarcane and vegetable production. Within this catchment there are poor rural communities which lack access to resources. Further down the catchment above the Ntshongweni Dam, small-scale farmers of African, Indian and European descent occupy the area. Within that catchment lie Mpumalanga Township and the Hammarsdale

Industrial Area. Peri-urban communities and rapidly urbanising communities occupy the area below the dam (Auerbach 1999).

Upper Baynesfield Subcatchment

This subcatchment is about 20 000 hectares in extent, including the Maybole commercial forestry plantation and about 12000 hectares of Baynesfield Estates. There are also some hectares of smaller commercial farms which are engaged in dairy, forestry, pork, avocado, citrus, maize, soya beans and sugar cane production (Auerbach 1999). The area around Baynesfield Dam is the hub of irrigation farming. Within the area there are two communities namely, Entembeni and Tafuleni. These communities constitute about 20 000 people. Over the years the relationship between these communities and Mondi Forests has been marred by conflict over the alleged damage to trees by cattle, arson and theft of wood. These communities have been denied access to resources and that has fueled controversy with Mondi Forests. Also situated within the catchment is a bacon factory (Auerbach 1999).

The Umlazi Irrigation Board Catchment Management Project, which extends along 50-60 kilometres of the Umlazi River from its source to a few kilometres before Mpumalanga, is tasked with ensuring that this part of the catchment provides abundant good quality water. To fulfil this mission the following actions have been earmarked as being crucial:

- Reducing pollution entering the river;
- Keeping a record of activities which affect the river in a good or bad way;
- Increasing public knowledge about ways of identifying problems.
- Encouraging communities to be responsible for the catchment in which they live.

There is a collaborative approach between the Umlazi Irrigation Board Catchment Management Project and the Ntshongweni Catchment Management Programme to improve the condition of the entire catchment (Stefano 1997).

Lower Baynesfield Subcatchment

This subcatchment is about 15 000 hectares in extent. It stretches from the Richmond-Pietermaritzburg road to the Ngomankulu Mountains that divide this subcatchment from

the Tala Valley subcatchment. The area includes irrigated, medium sized commercial dairy and crop farms near the Umlazi River. The subcatchment includes the Thornville and Hopewell residential areas. There has been conflict between commercial farmers and the communities of these two areas over alleged hunting with packs of dogs, arson, theft, and lack of access to grazing land by local communities (Auerbach 1999).

Tala Valley Subcatchment

The Tala valley subcatchment is about 10 000 hectares in extent. It supports highly intensive vegetable farming around the Thornlea Dam. This area is called "the vegetable basket of KwaZulu-Natal". In the 1980s extensive crop damage was caused by aerial drift of 2,4 D herbicide used by some farmers (Auerbach 1999). Reduction of this problem has led to improved relations between the farmers in the area, who have now realised their interdependence and that together they could improve the condition of the ecosystem to benefit other farmers and residents within the catchment. The Tala valley has been plagued by problems caused by alien weeds such as Mauritian thorn, Bugweed, Lantana and Triffid weed. Also posing a threat to the water system particularly is water hyacinth. Control mechanisms have been proposed through the help of the Plant Protection Research Institute in Pretoria (Stefano 1997). The Killarney Valley which lies just below Tala valley, has been subjected to illegal sand winning and this has posed a threat to both the river and the environment in that area. Another problem that has threatened the condition of the river in Killarney valley, is alleged pollution by the Rainbow Chickens industry (Stefano 1997).

Mpumalanga-Hammarsdale Subcatchment

This subcatchment is about 5 000 hectares in extent. The Mpumalanga Township has about 100 000 residents. The Hammarsdale Industrial Estate also forms part of this subcatchment. In an attempt to improve the state of the environment in the area, the Mpumalanga Environmental Forum and the Hammarsdale Industrial Conservancy are involved in a campaign to teach local people about the benefits of proper environmental management.

Ntshongweni-Drummond Subcatchment

This area is about 10 000 hectares in extent. It is composed of smallholdings of tribal land, some of which are under *Inkosi* while others are under the eThekwini Metro, formerly Durban Outer West Local Council. The area has diverse culture and agriculture. It comprises both steep and flat land with a potential for irrigation. Ntshongweni Dam, Salem (the actual study area) and Zwelibomvu are situated in the east. The Ntshongweni-Drummond Subcatchment has experienced problems caused by alien plants that pose a threat to the water supply in the catchment and which compete with indigenous plants. In an attempt to eliminate this problem, Drummond Conservancy members have been involved in a campaign to remove alien plants (Auerbach 1999).

Chatsworth Subcatchment

This is mainly an Indian residential area of about 5 000 hectares. It has residential and commercial infrastructure, with some small-scale intensive market gardens (Auerbach 1999).

Umlazi Subcatchment

This is the catchment area nearest the sea. It is about 5 000 hectares in extent and includes a residential area and the Southern Industrial Basin of Durban. The Southern Industrial Basin has high levels of pollution, especially air pollution from several industries in the area.

5.2.3 The approach adopted by Auerbach

Auerbach's (1999) focus was broader than that adopted for this research. His intention was to promote participatory catchment management, whereas the focus of this research was participatory management of river resources. While the broader scale is relevant, of greater importance to Auerbach's model is the approach to developing participation, and identifying who should participate. This research sought to determine the relevance of participation by traditional authorities. With this in mind, the intention now is to review Auerbach's approach and suggest how this may be improved in the light of understanding gained from the present research.

Auerbach summarised his strategies for participatory catchment management in a four-compartment model (Figure 5.1). The strategies that have particular relevance for this study are the 'structure for collective action' and 'local participation' The latter consists of 'environmental education' and 'school enviroclubs' which essentially places contemporary education as the custodian of norms and values. The former, whilst referring to 'structures of collective action' does not suggest a role for traditional structures. Auerbach's model is not explicit about the role of traditional authorities in promoting participatory catchment management.

Figure 6.1 illustrates strategies employed to contribute to sustainable development in the Mlazi catchment.

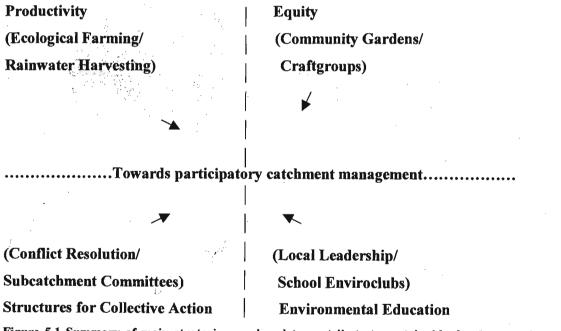


Figure 5.1 Summary of main strategies employed to contribute to sustainable development in the Mlazi catchment. Source (Auerbach 1999)

According to Auerbach (1999), in order to overcome social dilemmas inherent in managing natural resources in a sustainable manner, there has to be trust and agreed upon procedures among stakeholders. Forming the basis of this trust is environmental education and communication at a social level which could lead to an ecologically sound

agriculture and forestry, nature conservation and an effective use of water and the development of replicable prototypes (Auerbach 1999). He alludes to the fact that sustainable natural resource management entails decision-making and that intervention capacity must be created at a level of social aggregation appropriate for the ecosystems. The research suggests that one level of social aggregation is that as defined by Tribal Authorities who have over generations, and even now are still playing a role in social aggregations over defined spatial scales. Auerbach (1999) also notes that action strategies with practical consequences should be preceded by governing norms and values in the communities. Surprisingly, despite this assertion, he seems to miss the fact that norms and values are reinforced and upheld by institutions. Traditional authorities and other institutions such as Izangoma, are shown in this research to still play a role in ensuring that communities at local level are aware of those norms and values. The success of catchment management rests on bringing together social actors to form "soft systems" based on ongoing social and political struggles (Auerbach 1999). While recognising this, the role that is played by traditional authorities as both social and political actors within our societies with regard to managing the use of resources is not mentioned. This research suggests that the sidelining of these institutions could reduce the effectiveness of participatory management or lead to the failure even in the implementation of catchment management principles and practices.

In an attempt to disseminate information, a newsletter on the Mlazi River Catchment was distributed. According to Auerbach (1999) distributing the Zulu version of this newsletter is a 'major logistical effort' because many readers do not have reliable postal addresses. Notwithstanding these difficulties, attempts to disseminate this information appear not to have taken into account traditional methods of information dissemination such as *izimbizo* which are called and presided over by Tribal Authorities. The logistical problem that is being experienced can be addressed if the authority of *Amakhosi* and *Izinduna* in these areas is harnessed. The Mlazi Catchment Management model as espoused by Auerbach (1999) cites tradition and lack of selfless leadership as some of issues inhibiting progress towards participatory management in Mlazi River catchment. Despite this, the model fails to acknowledge that traditional authorities have in the past, and

continue in the present to provide leadership in communities, even when these are becoming urbanised. This study has shown that notwithstanding a weakening of traditional institutions, they still exert influence over their subjects on the use of river resources. Clearly for participative management to work there has to be a strategy that ensures accountability of *Amakhosi*. This is not reflected in Auerbach's approach.

Auerbach (1999) observes that the success of Integrated Catchment Management rests on leadership and a service ethic emanating from the National Landcare Programme, the National Department of Agriculture, the Directorate of Agricultural Resource Conservation, the Department of Environmental Affairs and Tourism and the Department of Water Affairs and Forestry. Indeed, a collaborative effort by these structures is vital for the realisation of good catchment management. However, the success of comanagement of our river resources rests much more on the collaboration between government structures and local institutions. This is because the pervasiveness of river systems in the landscape is such that government simply cannot assume control because of the scale of water resource use. This research suggests that Tribal Authorities could play an important role in encouraging local communities to participate in and adhere to initiatives aimed at attaining integrated catchment management. Also critical in catchment management is the implementation of strategies for bringing people together to learn about their environment so that they can embark on informal collective action to manage use of resources sustainably. This could be realised through supporting local leadership and the development of local values and vision for the future (Auerbach 1999). Missing in Auerbach's strategy seems to be the acknowledgement that long before the colonialisation of indigenous communities, Amakhosi, Izinduna, Izangoma and other influential people and institutions in African communities have, together with these communities, managed natural resources through ensuring that local norms and values were observed. Because traditional institutions have always had such a strong focus on norms and values, they are well positioned to contribute to contemporary approaches to managing the use of resources. While the role played by government, industries and farmers in the management of river resources is acknowledged, it has to be noted that other institutions such as Amakhosi, Izangoma and the greater community have always had *de facto* rights to the management of river resources. While these rights are not as strong as *de jure* rights, their existence should be enhanced rather than diminished. Auerbach's model does not fully recognise the role these institutions play and could continue to play, in the management of natural resources. These findings indicate a need to develop a management framework that incorporates traditional authorities.

5.3 Towards a new approach

The review of Auerbach's contemporary approach indicates several weaknesses. The intention in this section is to suggest a framework to guide participatory management and to link this with formal agreements that would promote accountability. The South African government has enacted various laws in relation to water resources and the environment. Among these laws are the Water Act 36 of 1998 and the National Environmental Management Act (NEMA). These laws have established a framework for the inclusion of various stakeholders in the management of water resources. However, it should be noted that, while these laws aim to facilitate equity and proper management, success rests on the people they serve. This view is echoed by Rogers et al., (2000), who contend that the solution to the challenges facing CMAs is to create 'learning institutions' which combine adaptive operations and generative leadership, instead of authoritarian, command-andcontrol bureaucracies that respond too slowly to survive in changing environments. A learning-by-doing approach should become a prerequisite for effective management. This brings to the fore the concept of Community Based Natural Resources Management (CBNRM). This research indicates roles for Amakhosi in Community Based Natural Resource Management (CBNRM). This role needs to be collaboratively executed with government.

This research suggests strongly that not only should traditional institutions be considered in this regard, but they may also prove helpful in promoting participatory management that strives to serve the interests of all. This sentiment is also espoused by Clarke *et al.*, (1996), who note common pool resources as crucial interests in the livelihoods of rural people who have low cash incomes from the formal economy. Furthermore, they regard

ritual and spiritual functions as critical services provided by rivers for the rural communities. As such the interests of these people can only be served if these functions are taken into account.

In the vision statement, "Some, for all, forever", the Department of Water Affairs and Forestry (DWAF) is tasked with maintaining the balance between the protection and the utilization of the resource by different people for different purposes. The maintenance of the supply and equitable use of these goods and services rests on the design and the implementation of appropriate institutions. It is on this basis that DWAF, through the Water Act, has proposed the establishment of Catchment Management Agencies (CMAs), Catchment Management Committees (CMC) and Water User Associations (WUAs) as institutions that will spearhead the management and control over use of goods and services provided by river resources. The establishment of these institutions by DWAF, comes at a time when people are still healing from the scars of resource management systems established under both colonial and apartheid governments. These have a bearing for this research because according to Cross & Clark (1996) and Cross et al. (1995), hidden under the surface of local resource problems are memories of powerlessness and deprivation. A central issue therefore is an organisational and operational system that acknowledges and empowers indigenous systems rather than simply imposing new ones.

Murphree (1993) suggests that there are two factors people consider to be vital to the management of natural resources. These are that natural resources play a crucial role in improving their livelihood, and secondly, environmental degradation is perceived to be threatening life-sustaining processes, and their aesthetic values. Recognition of these specific conditions that prevail at different places along a river is important in that there will be little prospect of reducing the chances of deprivation if these places and civil society institutions and organisations are not congruent. The Tribal Authorities are demarcated in space, they promote cohesion between people and they still retain legitimate authority to a greater or lesser degree. Tribal Authorities are therefore perceived from this research to be role players that can expand the interests of a sector of society; and who have an interest in the management of river resources. Taking this into

account, it is possible to draw up a framework that incorporates this institution into a forum for participative management (Figure 5.2). The participation of Tribal Authorities, and more particularly the issue of accountability, is secured through cooperative agreement. Whilst this research suggests important potential for Tribal Authorities to support the community based management of resources use, it is appreciated that this cannot occur in isolation from the operations of statutory processes and structures. The framework seeks to situate the role of traditional authorities within the wider context of both governmental and non-governmental organisations and processes.

The establishment of CMAs provides an appropriate macro-scale structure and system within which government agencies at various levels, and the private sector can cooperate, guided by a shared philosophy. But, as this research suggests, civil society and more particularly rural people that retain allegiance to Tribal Authorities and/ or traditional institutions, identify with river systems over smaller, more personal, spatial scales. This being so, the CMA (Figure 5.2) would identify management units that accord with administrative boundaries of government and boundaries demarcated by the cohesion of citizens acknowledging the legitimacy of a traditional authority. This authority can exercise control directly through its legitimate powers and indirectly through its maintenance of norms and values (culture). These properties of a traditional authority make it a useful, and a rightful participant in co-management. Other parties to management are government at various levels, and stakeholders such as business, Community Based Organisations (CBOs) and non-government agencies that are either resource users, or influence resource use through provision of services.

The framework (**Figure 5.2**) indicates a need for Management Forums, constituted by members from the public and private sectors, and with interests from a defined sector of the river system (Management unit). The problem of accountability, alluded to by Auerbach (1999) is addressed in the framework by drawing on the provision for cooperation agreements (DEAT 2000). It is envisaged that these co-operation agreements act as service agreements, whereby not only does a member of the forum agree to participate constructively in a co-operation agreement, but is also committed to being held accountable for agreed actions in support of this approach.

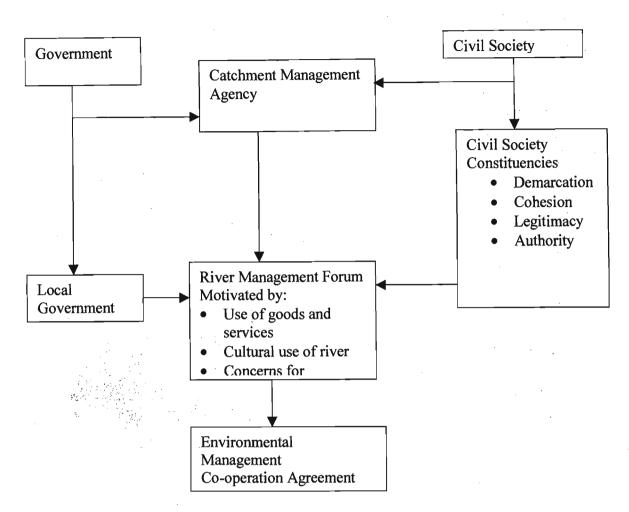


Figure 5.2. A framework for participatory management of a river system showing the possible role for traditional authorities (refer to text for full explanation).

5.4 Environmental management co-operation agreements

An Environmental Management Co-operation Agreement (EMCA) is a co-regulatory instrument, whereby an interactive relationship between the regulator and the regulated is established to improve the environmental performance of the regulated beyond or in compliance with legal requirements (DEAT 2000). Memoranda of Understanding (MOUs) and EMCAs can be useful tools in fostering co-operation within government and public-private partnerships, as envisaged in the framework (**Figure 5.2**). These are compared, and elements critical in fostering partnerships for the promotion of environmental agreements are indicated in **Table 5.1**.

Table 5.1. Comparative analysis of MOUs and EMCAs

Memorandum of Understanding

- Sections 7,3 (b) and 14 (f) of NEMA refer to use of MOUs in terms of promoting co-operative governance between organs of state.
- In terms of NEMA, organs of state are parties to MOU.
- In terms of co-operative governance it can be used to streamline practical operations, administrative functions or working relations in order to improve administrative efficiency of organs of state.
- Dispute-resolution mechanisms would need to be built into MOUs.
- As the MOU is between organs of state to enhance cooperative governance, no penalty clauses would normally be included, as other mechanisms must be found to resolve disputes.
- Parties to the MOU are bound to the agreement, but it has no legal standing.
- Parties to the MOU can set objectives and find means to achieve them.

Environmental Management Co-operative Agreements

- Section 35 of NEMA refers to the use of EMCAs in terms of promoting the principles laid down in NEMA.
- It should be noted that although an EMCA may be initiated by any party, only the Minister, any MEC or Municipality may enter into an EMCA with any person or community.

Here any organ of state that has jurisdiction over an activity must be party to the EMCA.

- It is essentially used to mange the environment through the adoption of the principles of NEMA that will promote sustainable development.
- Dispute resolution mechanisms can be built into an EMCA.
- Penalty clauses can be built into the EMCA in the case of non-compliance, when dispute-resolution mechanisms fail.
- Parties to an EMCA are legally bound to the agreement.
- Normally the public authority will set the objectives and the person or community will find the means to achieve the objectives.

Source: (DEAT 2000)

The comparative analysis provided in **Table 5.1** provides a framework for the implementation of environmental agreements that present the following opportunities:

- Agreements carry a potential to prepare the stage for pro-active initiatives and cooperative behaviour of regulated parties (DEAT 2000).
- Agreements can play a vital role in environmental policy as part of the combined policy approach to achieve sustainable development (e.g. they can supplement regulation in those cases where favourable conditions prevail) (DEAT 2000).
- Agreements can be reached faster and changed more easily than direct regulation through public authorities (DEAT 2000).

In sum, the success of the management of river systems rests on an inclusive approach comprising both government and locally based institutional structures. The enactment of

EMCA by the DEAT creates a fundamental framework within which partnerships whose aim is to facilitate the implementation of successful natural resource management ventures could operate. The involvement of Tribal Authorities could play a vital role in this framework.

CHAPTER SIX CONCLUSION

Cook (1995) states that people are at the heart of the quest for sustainability. He states that the attainment of sustainable development rests on building human capacity. To substantiate his argument Cook (1995) indicates that there are three dimensions of empowerment. The first, objective empowerment, states that people can be empowered objectively by:

- being exposed to strategies such as those included under the umbrella term of participative management;
- being exposed to empowering leadership;
- organisational redesign which places decision-making authority at the level at which the work is done; and
- belonging to a learning and affirming organisation (Cook 1995).

Using Cook's idea of objective empowerment, Tribal Authorities could be included in forums of decision-making, not only as passive but as active participants, and it is through their active participation that river resources could be better managed.

Secondly, Cook (1995) in his model highlights the need for subjective empowerment, which refers to the development of a sense of 'I can' within the person relative to a specific task or function. This research has established that through the power they hold, traditional institutions are the custodians of norms and values governing the use of resources by communities. Based on Cook's idea of subjective empowerment, institutions such as Tribal Authorities could still contribute substantially to river resource use through believing in the authority and power entrusted to them by their subjects, and also holding the subjective belief that they could contribute positively to the comanagement of river resources.

Lastly, Cook (1995) defines empowerment in competence as the process of developing skills, knowledge and attitude required to carry out functions successfully. Crucial in this

dimension are interpersonal competence and competence in self-management. According to Cook (1995) a manager is someone who gets work done through others. This research has established that, in Salem, *Amakhosi* delegate *Izinduna* and other community members to ensure that duties and activities falling under their jurisdiction are carried out. Including Tribal Authorities in the management forums of CMAs could contribute to the success of these forums, as these institutions command community support, particularly in rural areas. This community support has been demonstrated in Salem where *Inkosi* Shozi granted permission for this study to be conducted in this area, which is under his jurisdiction, and agreed that his subjects be interviewed. During this research community members interviewed indicated that it is *Inkosi* and *Izinduna* who have the authority to allocate sites, and therefore, implicitly give rights to their subjects to access communally-shared resources.

REFERENCES

Adams, M., Cousins, B., and Manona, S. (1999). "Land tenure and economic development in rural South Africa: constraints and opportunities", *National Conference on Land and Agrarian Reform in South Africa*, 26-28 July 1999. Also published as Working Paper 125, Overseas Development Institute, London.

Adams, W.M. (2001). *Green Development*. 2nd edition. Environment and sustainability in the Third World. Library of Congress Cataloguing in Publication Data, London.

Adams, W. and Hulme, D. (2001). African Wildlife and Livelihoods: The Promise & Performance of Community Conservation. James Currey Limited, Harare, Zimbabwe.

Alchian, A. (1987). *Property Rights*: The New Palgrave Dictionary of Economics. Macmillan, London.

Amtaika, A. (1996). The Role of Tribal Authorities in a Democratic KwaZulu-Natal. (Thesis). Pietermaritzburg.

Annis, S. (Ed) (1992). Poverty, Natural resources and Public Policy in Central America, Brunswick, NJ: Transaction Publishers for the Overseas Development Council.

Auerbach, R. (1999). Design For Participation in Ecologically sound Management of South Africa's Mlazi River Catchment. Ecological Agriculture, South Africa.

Balance, A., King, N. (1999). State of the environment South Africa 1999- an overview of the National State of the Environment Report on the Internet for South Africa. (http://www.ngo.grida.no/soesa/).

Barrow, E. and Murphree, M. (2001). Community Conservation: From Concept to Practice. In Hulme, D. and Murphree, M. African Wildlife and Livelihoods: The Promise and Performance of Community Conservation. Weaver Press, Harare, Zimbabwe.

Barry, N. (1984). An Introduction to Modern Political Theory. Macmillan Education Limited: London.

Beinart, W. (2001). Chieftaincy and the concept of articulation: South Africa 1900-50. Arca, Cape Town.

Berkes, F and Farvar, M. (Eds) (1988). Common Property Resources. Belhaven Press. London.

Bless, C., and Achola, P. (1998). Fundamentals of Social Research Methods: An African Perspective. Government Printing Department, Lusaka, Zambia.

Borrini-Feyerabend, G. (1996). Collaborative Management of Protected Areas: Tailoring the Approach to the Context, Issues in Social Policy. IUCN, Gland, Switzerland.

Borrini-Feyerabend, G. (1997). Beyond Fences: Seeking Social Sustainability in Conservation. Volume 2. A Resource Book. IUCN, Gland, Switzerland.

Borrini-Feyerabend, G. (2000). Co-management of Natural resources, GTZ and IUCN, Kasparek, Heidelberg.

Boserup, E. (1965) reissued 1993. The Conditions of Agricultural Growth: The Economics of Agrarian Growth Under Population Pressure. Earthscan: London.

Breen, C.M., Dent, M.C. and Mander, M. (1998). The Pongolo river flood plain and its people. (Ocassional paper No. 186). Pietermaritzburg: Institute of Natural Resources.

Breen, C. M. Biggs, H. Dent, A. Gorgens, J. O'Keeffe and Rogers, K. H. (1995).

Designing A Research Programme To Promote River Basin Management. (Occasional Paper No. 160). Pitermaritzburg: Institute of Natural Resources.

Breen, C. M. Quinn, N. W. and J, Mander. (1997). How Can We Promote River Management? (Occasional Paper No. 179). Pietermaritzburg: Institute of Natural Resources.

Brinkerhoff, D. and Crosby, B. (2002). Managing Policy Reform: Concepts and Tools for Decision-Makers on Developing and Transitioning Countries. Kumarian Press,

Bloomfield, USA.

Bromley, D., and Cernea M (1988). 'The Management of Common Property Resources: Some Conceptual and Operational Fallacies'. World Bank Discussion Paper. World Bank Washington DC.

Campbell, B.M., Luckert, M., and Scoones, I. (1997). "Local-level valuation of savanna resources: a case study from Zimbabwe", *Economic Botany*, 51 (1) pp 59-77.

Center for International Forestry Research (CIFOR). (1999). Human Impacts on Tropical Forest Biodiversity and Genetic Resources. CABI Publishing, New York.

Cernea, M. (1987). 'The Management of Common Property Resources: Some Conceptual and Operational Fallacies'. World Bank Discussion Paper. World Bank Washington DC.

Chambers, R. (1983). Rural Development: Putting the Last First. Longman, Harlow, UK.

Chambers, R. (1988). Sustainable Rural Livelihoods: a key strategy for people environment and development. Longman, Harlow, UK.

Chambers, R., (1991). Farmers' practices, professional and participation: Challenges for soil and water management. Paper presented at a workshop on farmers' practices and soil and water conservation programmes: 19-21 June, ICRISAT Centre, Hyderabad, India.

Chambers, R. (1997). Whose reality counts?: Putting the first last. Intermediate Technology Publication, London, UK.

Cook, J. (1995). Empowering people for sustainable development. In Fitzgerald, P., and McLennan, A. Managing Sustainable Development in South Africa. Oxford University Press, United Kingdom.

Cooper, B. M. (1997). Marriage in Maradi, gender and culture in a Hausa society in

Niger, 1900-1989, Social history of Africa series, James Currey, Oxford.

Critchley, W., Versveld, D. & Mollel, N. (eds). (1998). Sustainable land management: some signposts for South Africa: Land Management and Rural Development Programme. The University of the North Press, Sovenga, South Africa.

Cousins, B, (ed.). (1992) 'Institutional Dynamics in Communal Grazing Regimes in Southern Africa'. Centre for Applied Social Sciences, University of Zimbabwe: Harare.

Cousins, B. (2000). Evolving land rights, policy and tenure in Africa: Tenure and Common Property Resources in Africa. Department for International Development. Russell Press, Nottingham, UK.

Cross, C., Mngadi, T., Sibanda, S. and Jama, V. (1995). 'The Land is Not Enough: Land Reform Synthesis Report, KwaZulu-Natal District Study'. Rural Urban Studies Unit for Land and Agriculture Policy Centre. Centre for Social and Development Studies, University of Natal: Durban.

Cross, C., Mzimela, T., & Clark, C. (1996). 'Green Rights in the Boundary Lands'. Rural Urban Studies Programme for Land and Agriculture Policy Centre. Centre for Social and Development Studies, University of Natal: Durban.

Cross, C., Luckin, L., & Mzimela, T. (1996) 'Disarming the Borders'. Rural Urban Studies Programme for Land and Agriculture Policy Centre. Centre for Social and Development Studies, University of Natal: Durban.

Davies, B. and Day, J. (1998). Vanishing Waters. University of Cape Town Press: Cape Town.

Davion, R. J. (1996). A contribution to understanding contemporary people-environment dynamics. South African approaches in context. MSc Thesis. University of Natal, Pietermaritzburg, South Africa.

Densham, D. (2002). *Traditional Authorities-know where to land*. The Association For Rural Advancement: Pietermaritzburg.

Dimbi, L. (1998). The Role of Leadership in the Structure and Functioning of Community Based Natural Resource Management Organisation. A Zimbabwean Case Study. (Thesis). University of Natal, Pietermaritzburg.

Dorm-Adzobu, C. (1995). New Roots: institutional environmental management is Africa. World Bank: World Resource Institute.

Farmer Support Group (1996) 'Do You Care About Your Catchment? A message to Decision Makers in the Catchment of the Umlazi River from the Ntshongweni Catchment Management Programme'. Farmer Support Group-Umgeni Water Pietermaritzburg.

Freeman, R. (1994). Strategic management: A stakeholder approach. Boston: Pitman Publishers.

Field-Juma, S. (1996). In Mugabe, J. and Tumushabe, G. (Eds) Governing the Environment: Political Change and Natural Resource Management in Eastern and Southern Africa. African Centre for Technology Studies (ACTS). Environmental Policy Series. ACTS Press, Kenya.

Fitzgerald, P. and Mc Lennan, A. (eds). (1997). Managing Sustainable Development in South Africa. Oxford University Press: Oxford.

Giliomee, H. and Schlemmer, L. (1989). From Apartheid to Nation Building. Oxford University Press Cape Town.

Gleik, P. (1993). Water in Crisis: A Guide to the World's fresh Water Resources. OUP. New York.

Gorgens, A., Pegram, G., Uys, M., Grobicki, A., Loots, L., Tanner, A., Bengu, R. (1998). Guidelines for Catchment Management to Achieve Integrated Water Resources Management in South Africa: Water Research Commission (WRC). Pretoria, South Africa.

Gunderson, L., Holling, C. S. and Light, S. S. (1995). Barriers and Bridges to the renewal of ecosystems and institutions. Colombia Press, Colombia.

Guy, J. (1979). The Destruction of the Zulu Kingdom: The Civil War in Zululand 1879-1884. Longman: London.

Hachileka, E. and Kokwe, M. (eds). (2000). Best Practices in Community Based Natural Resource Management: Proceedings of the workshop on the Development of CBNRM Best Practices Principles and Criteria. IUCN- The World Conservation Union: Harare.

Haines, R. and Cross, C. (1988) 'An Historical Overview of Land Policy and Tenure in South Africa's Black Areas', in Cross, C and Haines, R, eds: *Towards Freehold: Options for Land and Development in South Africa's Black Rural Areas*. Juta: Cape Town.

Hammond, P.B. (1978). An introduction to cultural and social anthropology. Macmillan Publishing Co., Inc, New York, USA.

Hardin, G. (1968) 'The Tragedy of the Commons', Science 162: 13, 1243-1248.

Harper, F.A. (1974). Property in its primary form. *In property in Humane Economy*. In Blumenfeld, S. (ed). La Salle, III: Open Court.

Hyden, G. (1992). Governance and Sustainable Development in Africa: The Search for Economic and Political Renewal. In Okoth-Ogendo, H.W.O. and Tumushabe, G.W. (Eds): Governing the Environment: Political Change and Natural Resource Managemnt in Eastern and Southern Africa. African Centre for Technology Studies (ACTS). Environmental Policy Series. ACTS Press, Kenya.

Hays, S. (1959). Conservation and the Gospel of Efficiency: the Progressive Conservation Movement 1890-1920. Harvard University Press, Cambridge, MA.

Hilhorst, T., and Coulibaly, N. (1998). "Ellaborating a local convention in managing village woodlands in southern Mali", *Drylands issue Paper*, no. 78, IIED, London.

Hill, K. (1993). Conflicts over development and environmental values. Island Press, Washington.

Holland, H. (2001). *African Magic*: Traditional ideas that heal a continent. Penguin Books (South Africa) (Pty) Ltd: Johannesburg.

Holling, C. (ed.). (1978). Adaptive Environmental Assessment and Management, John Wiley and Sons, New York.

Hulme, D. and Murphree, M. (eds). (2001). *African Wildlife and Livelihoods*: The Promise & Performance of Community Conservation. James Currey LTD, Harare, Zimbabwe.

Ife, J. (1999). Community Development: Creating community alternatives- vision, analysis and practice. Addison Wesley Longman Australia (Pty) Limited: Sydney.

IIED. (1997). "Valuing the hidden harvest: methodological approaches for local level economic analysis of wild resources", *Sustainable Agriculture Programme Research Series*, 3(4), International Institute for Environment and Development, London.

Johnston, B. and Clark, W. (1982). Redesigning Rural Development. John Hopkins University Press, Baltimore.

Jones, B. (1999). "Rights, revenues and resources: the problems and potential of conservancies as community wildlife management institutions in Namibia", Unpublished report for *Evaluating Eden Project*, IIED, London.

Kidd, M. (1997). *Environmental Law*. A South African Guide. Juta &CO. LTD, Cape Town.

Kotze, D.A. (1975). African Politics in South Africa. 1964-1974: Parties and Issues. C. Hurst & Co. (Publishers) LTD, London.

Lawry, S. (1990) 'Tenure Policy Toward Common Property Resources in Sub Saharan Africa'. *Natural Resources Journal* 30: 403-22.

Lipschutz, R. and Mayer, J. (1996). Global Civil Society and Global Environmental Governance. In Mugabe, J. and Tumushabe, G. (Eds) Governing the Environment:

Political Change and Natural Resource Management in Eastern and Southern Africa.

African Centre for Technology Studies (ACTS). Environmental Policy Series. ACTS

Press, Kenya.

Lipton, M. et al. (1996). New Seeds and Poor People. John Hopkins University Press, Baltimore.

Lynch, O., and Alcorn, J. (1993). Tenurial Rights and Community-based Conservation. In Western, D. and Wright, M. *Natural Connections*: perspectives in community-based conservation. Island Press, Washington.

Margoluis, R. and Salafsky, N. (1998). Measures of success: Designing managing and monitoring conservation and development projects. Washington D. C.: Island Press.

Margoluis, R. (2001). *Adaptive Management*: A Tool for Conservation Practitioners. Biodiversity Support Programme, Washington DC.

Margoluis, R., Redford, K., Salafsky, N. (2001). *Adaptive Management*: A Tool for Conservation Practitioners. Biodiversity Support Programme, Washington DC.

Maughan Brown, A.M. (1998). Revisiting Community-Based Natural Resource Management: a case study of the Tchuma Tchato Project, Tete, Mozambique. MenvDev thesis. Centre for Environment and Development, University of Natal, Pietermaritzburg, South Africa.

Mbengashe, M. pers. comm. 20 May 2002).

Mbiti, J. (1991) An Introduction to African Religion, 2nd ed. Heinemann: Oxford.

McCay, B. and Achenson, J. (1987) The Question of the Commons. University of Arizona.

Metcalfe, S. (1993). Project Evaluation: Lake Mburo Community Conservation Project. UNP, Kampala.

Mitchell, R., Bradley, R., Donna, J. (1997). Toward a theory of stakeholder

identification and salience: Defining the principle of who and what really counts. Academy of Management Review 22(4): 853-87.

Mitroff, I. (1993). Stakeholders of the organizational mind. Sa Fransisco: Jossey-Bass Publishers.

Mugabe, J. and Tumushabe, G. (1999). Environmental governance: Conceptual and emerging issues: In Okoth-Ogendo, H, and Tumushabe, G. (eds). (1999). *Governing the Environment*: Political Change and Natural Resources Management in Eastern and Southern Africa. ACTS, Nairobi.

Murphree, M. W. (1993). Communities as Resource Management Institutions: Gatekeeper Series No. 36. Sustainable Agriculture Programme of the International Institute for Environment and Development. Maputo, Mozambique.

National Water Act 36 of 1998.

Murphree, M.W. (1995). 'Optimal Principles and Pragmatic Strategies: Creating an Enabling Politico-legal Environment for Community Based Natural Resource Management (CBNRM)', in L Rihoy (ed) *The Commons Without the Tragedy*?

Norton, B. (1991). Towards Unity Among Environmentalists. Oxford University Press, Oxford.

Ntinga, S. pers. comm. 6 December 1999.

Okoth-Ogendo, H, and Tumushabe, G. (eds). (1999). Governing the Environment: Political Change and Natural Resources Management in Eastern and Southern Africa. ACTS, Nairobi.

Ostrom, E. (1985) Governing the Commons: The Evolution of Institutions for Collective Action. Cambridge University Press: Cambridge.

Ostrom, E. (1990). Governing the Commons. Cambridge University Press, Cambridge.

Ponton, G. and Gill, P. (1982). Introduction to Politics. Basil Blackwell (Ltd): New

York.

Pretty, J. (1994). Regenerating Agriculture: Policies and Practice for Sustainability and Self-reliance. Earthscan, London.

Pretty, J., Eng-Leong, F., Della Senta, T. (1995). Sustainable Agriculture: policies and practices for sustainability and self-reliance. Earthscan, London

Reed, D. (ed) (1996). Structural Adjustment, the Environment, and Sustainable Develoment. Earthscan Publications Ltd: London.

Rihoy, E. (ed). (1995). The Commons without the Tragedy? Strategies for Community-Based Natural Resources Management in Southern Africa. USAID, Lilongwe, Malawi.

Scherr, S. (1999). Poverty-Environment Interactions in Agriculture: Key Factors and Policy Implications. Poverty and Environment Initiative Background Paper 3. UNDP, New York.

Scoones, I. and Thompson, J. (1994) Beyond Farmer First: Rural People's Knowledge, Agricultural Research and Extension Practice. Intermediate Technology Publications: London.

Scoones, I. et al (1996) Hazards and Opportunities: Farming Livelihoods in Dryland Africa: Lessons from Zimbabwe. Zed Books in association with International Institute for Environment and Development: London.

Senge, P., Kleiner, A., Roberts, C., Ross, R., and Smith, B. (1994). The fifth Discipline Fieldbook: Tools and strategies for Building a Learning Organisation. New York; Doubleday/Currency.

Senge, P., Roberts, C., Smith B.J. and Kleiner, A. (1995). The fifth discipline fieldbook:

Strategies and tools for building a learning organisation. Nicholas Brealy, London.

Senge, P. (1999). The Fifth Discipline: The Art and Practice of The Learning

Organization. London, Randon House Business Books.

Serageldin, I., Steer, A. (1994). Making Development Sustainable: From Concepts to Action. Environmentally Sustainable Development (Occasional Paper Series No. 2). The World Bank, Washington, D.C.

Silitshena, R. and Masacorale, A. (2001). In Mugabe, J. and Tumushabe, G. (eds) Governing the Environment: Political Change and Natural Resource Management in Eastern and Southern Africa. African Centre for Technology Studies (ACTS). Environmental Policy Series. ACTS Press, Kenya.

Sono, T. (1993). From Democracy to Partocracy: Why a party system is undemocratic. Via Afrika Limited, Pretoria.

South Africa. Department of Environmental Affairs and Tourism. (2000). Discussion Document on Environmetal Management Co-operation Agreements: A Guide for their Design and Use. Pretoria: Government Printer.

Stefano, L. (1997). Catchment Management. In Farmer Support Group 'Do You Care About Your Catchment? A message to Decision Makers in the Catchment of the Umlazi River from the Ntshongweni Catchment Management Programme'. Farmer Support Group-Umgeni Water Pietermaritzburg.

Southall, R. (1983). *South Africa's Transkei*: The Political Economy of an 'Independent' Bantustan. Monthly Review Press, New York.

Steiner, A. and Rehoy, E. (1995). The Commons without the tragedy: strategies for Community Based Natural Resource Management in Southern Africa. Proceedings of the Regional Natural Resource Management Programme Annual Conference, Kasane, April 3-6, 1995.

Stohr, R. (2001). Joined-up thinking: the example of river basin planning. In Adams, W. Green Development: Environment and sustainability in the Third World. Routledge, New York.

Talbott, K. (1995). Balancing Acts: Community-Based Forest Management and National Law in Asia and the Pacific. Washington D.C.: World Resource Institute.

Temkin, B. (1976). Gatsha Buthelezi: Zulu statesman. Purnell Press, Cape Town.

Thompson, L., and Butler, J. (eds.). (1975). Change in Contemporary South Africa. University Press, Berkely and Los Angeles.

Toulman, C., and Quan, J. (eds.). (2000). Evolving land rights, policy and tenure in Africa: Department for International Development. Russell Press, Nottingham, UK.

Turner, M. and Hulme, D. (1997). Governance, Administration and Development: Making the State Work. Macmillan, London.

Uphoff, N. (1992). Learning from Gal Oya: Possibilities for Participatory Development and Post-Newtonian Social Science, Cornell University Press, New York.

Venter, A. (ed.). (2001). Government and Politics in the new South Africa. Van Schaik Publishers: Pretoria.

Vosloo, A. (ed.). (1974). Local history. Natal Education Department, Pietermaritzburg.

Walters, C.J. (1986). Adaptive Management of Renewable Resources. New York: McGraw-Hill.

Welsh, D. (1974): In Welsh, D. (1989) A history of South Africa. Harper Collins, London.

Western, D., Wright, R.M. and Struim, S. C. (1994). *Natural Connections*: Perspectives in community-based conservation. Island Press, Washington, D.C.

Western, D. and Wright, R. M. (1994). Background to community-based conservation, in Western D, Wright R.M and Strum S.C. (eds). *Natural Connections*: Perspectives in community-based conservation. Island Press, Washington, D.C., pp1-14.

Wood, A., Stedman-Edwards, P. and Mang, J. (2000). Root Causes of Biodiversity

Loss. Earthscan Publication Ltd: London.

Wynne, B. and Lyne, T. (1995). "Scientific knowledge and the global environment." In Redclift, M. and Benton, T (eds) *Social Theory and the Global Environment*, London: Routledge, pp. 169-189.

JOURNALS

Annis, S. (1992). Evolving Connectedness among environmental groups and grassroots organisations in protected areas of Central America. World Development, Vol. 20, No. 4, April, pp. 587-596.

Banuri, T and Amalrik, F. (eds.). *Population, Environment and De-responsabilisation*: Case Studies from the Rural Areas of Pakistan, Sustainable Development Policy Institute, Working Paper POP 1, Islamabad (Pakistan), 1992.

Broad, R (1994). The poor and the environment: friends or foes? World Development, Vol 22 (6): 811-822.

Holling, C. and Meffe, G. (1996). 'Command and Control of the Pathology of Natural Resource Management', *Conservation Biology* 10(2), April, 329-37.

Levin, P. (1996). In Ntsebeza, L. "Traditional Authorities, Local Government and Land Rights", paper prepared for Land and Agrarian Reform Conference, 26-28 July 1999.

Lindbolm, C. (1979). 'Still Muddling, Not Yet Through', *Public Administration Review* 39(6), 517-26.

Mvelase, A. (1988). "Land use and the community": a case study (mimeo).

Ntsebeza, L. (1999). "Land tenure reform in South Africa: an example from the Eastern Cape Province", *Drylands Issue Paper*, No. 82, International Institute for Environment and Development, London.

Ntsebeza, L. (1999) "Traditional Authorities, Local Government and Land Rights",

paper prepared for Land and Agrarian Reform Conference, 26-28 July 1999.

Ntsebeza, L. Land & Rural digest No. 15. (November/December 2000). The Record of Rural People's Policy.

Plaas Research Report Vol.3 Part 1. (April 2001). Commons Southern Africa. University of Western Cape Press, Cape Town.

Resource Africa Volume 1 No. 9. (August 2000). SADC Natural Resource Management Programme.

Rogers, K., Roux, D. and Biggs, H. (2000). Challenges for catchment management agencies: Lessons from bureaucracies, business and resource management. Water SA Vol. 26(4) pp513-519.

Seetal, A. (2000). In Water Sewage & Effluent. Bedfordview. October/November 2000. Volume 20 No. 4.

Water Sewage & Effluent. Bedfordview. March 1999 Volume 19 No. 1.

Water Sewage & Effluent. Bedfordview. August/September 2000. Volume 20 No. 3.

Ashton, N. (2000). In Water Sewage & Effluent. Bedfordview. June/July 2000. Volume 20 No.2.

Water Conservation and Demand Management National Strategy Framework: Department of Water Affairs and Forestry, Republic of South Africa. Draft- May 1999.

Documents from the Internet

UNDP (2000). *Governance: Sound Development Management*: The elements of good governance.UNDP.Online:http://www.adb.org/documents/policies/governance/gov200. Asp.

APPENDIX A

GENERAL QUESTIONNARE

I, Sandile Zeka a Masters student at the Centre for Environment and Development (CEAD) on the Pietermaritzburg campus of the University of Natal, am presently doing research on river management, using Umlazi catchment as a study area. This project is under the auspices of the Institute of Natural Resources (INR), and I am doing this study under the supervision of Professor Charles Breen. As this is a community-based study I intend working closely with eDamini community bordering Umlazi River. It is on this basis that I sought the permission of *Inkosi* Shozi, as this area is under his jurisdiction. I am grateful to him for allowing me to interact with his subjects. The Department of Water Affairs and Forestry is interested in the management of the river system as stipulated by the National Water Act 36 of 1998. I undertake to respect the individual's right to decline to participate in the study or discontinue participating at any time during the interviewing period. It should also be noted that no information about participants shall be disclosed that might lead to the identification of any participant unless prior permission is granted by the participant. I uphold the right of the participants to have access to the findings and the outcome of this study should they wish to. In case some clarification is needed, I can be contacted at 033 260 5660.

graj		

I.	Name of respondent	(optional	l)
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2. Age:

15-25	
26-35	
36-45	
46-55	
56 and above	

3	-	G	er	h	er
J	• '	u	v	ıu	v.

	Male	Female	
I.	Occupation of res	mondent (e.g. Teacher Sangoma Pactor Inkoci Spirit modius	m Shan Ou

- Occupation of respondent (e.g.: Teacher, Sangoma, Pastor, Inkosi, Spirit medium, Shop Owner, Taxi Driver, Politician, CBO, SANCO etc.)
- 5. How long have you lived in eDamini area?.....
- 6. How far is your homestead from Umlazi River?

Very far	Far	Not far	Close

7. Did	proximity to the							
	Very strongly	/	,					
	Strongly							
	Not very stro	ngly	_					
	Not at all					_		
	Don't know							
			-			-		
8. Who	o allocated you th	ne site?						
	Inkosi							
	Induna							
~	Father							
	-							
		V,						
	A - 1.00							
cess to :	w many people ar and use of the you use the river	e river		sehol	d?	: :	······································	
cess to a 10. Do y 11. Hov	and use of the you use the river? y often do you go	e river	ver?			<i>:</i>		l
cess to a 10. Do y 11. Hov	and use of the	e river			d?	seldom	never	
cess to a 10. Do y 11. Hov	and use of the you use the river? y often do you go	e river	ver?			<i>:</i>		
cess to :	and use of the you use the river w often do you go Very frequently	e river	ver? uently	Not	t often	seldom	never	five
10. Do y	and use of the you use the river w often do you go Very frequently	e river	ver? uently	Not	t often	seldom		five
cess to :	and use of the you use the river w often do you go Very frequently	e river	ver? uently	Not	t often	seldom	never	five
10. Do y	and use of the rou use the river? To ou use the river? To often do you go Very frequently The of the following	o to the ri	ver? uently	Not	t often	seldom	never	five
10. Do y	and use of the rou use the river? w often do you go Very frequently th of the following More frequent Not as frequent	o to the ri	ver? uently	Not	t often	seldom	never	five
10. Do y	and use of the rou use the river woften do you go Very frequently th of the following	o to the ri	ver? uently	Not	t often	seldom	never	five
10. Do y	and use of the rou use the river? v often do you go Very frequently th of the following More frequent Not as frequent No change	o to the ri	ver? uently	Not	t often	seldom	never	five
10. Do y 11. How	and use of the rou use the river? v often do you go Very frequently th of the following More frequent Not as frequent No change	t t	ver? uently lescribe a	Not	t often	seldom	never	five
10. Do y 11. How	and use of the You use the river's voften do you go Very frequently the of the following More frequent Not as frequent No change Do not know the do you go to the	t t	ver? uently lescribe a	Not	t often	seldom	never	five
10. Do y 11. How 12. Whice years?	and use of the You use the river's voften do you go Very frequently the of the following More frequent Not as frequent No change Do not know the do you go to the	t teriver	ver? uently lescribe a	Not	t often	seldom	never	
10. Do y 11. How 12. Which years?	And use of the You use the river's voften do you go Very frequently The of the following the of the following the of the following the original properties that we have a do you go to the washing	t teriver	ver? uently lescribe a	Not	ge in the freque	seldom	never	

14. Which members of your family go down to the river	14.	Which	members	of your	family go	o down to	the river
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Men				
Women	·		_	
Boys	_		_	
Girls		_ _		

15. How often do members of your household use the river?

Daily	Men	
Weekly	Women	·
Monthly	Boys	
Not at all	Girls	

16. Hs the frequency of their use of the river changed?

Increased	Men	
Decreased	Women	
Stayed the same	Boys	
Don't know	Girls	

17. Who in the household exacts control over the following activities?

	Access	Fishing	Collect wood	Grazing cattle	Water	Others
Male (adult)				_		
Female (adult)				-		
Male (youth)		ž,÷				
Female (youth)						

18 (a). Which of the following is the main source of drinking water for your household?

(b) Which members of your household use this source?

Tap in House	Communal Tap	River	Protected spring	Rain tank	Bore Hole	Well
Men	Women	Boys	Girls	Men &	Boys &	All groups

Less frequent	More frequen		ources of drinking water ch		Don't know	
		•			<u> </u>	
River Reso	urces					
ow often does th	e community harv	est river res	sources?			
Very frequently	Frequently	Less Fre	equently	Don't know	Not at all	
ow do people he	ere harvest river res	sources?				
On h	ead	<u> </u>				
Whe	el barrow	:				
Cart	50,000	Ý				
		·,				
			1			
		.			·	
		. : 				
ning or medicinal		t on the rive	er? (e.g. fis)	hing, riparian pla	ants for building,	
Very depend	l plants)	t on the rive	er? (e.g. fis	hing, riparian pla	ants for building,	
Very dependent	l plants) dent	t on the rive	er? (e.g. fis	hing, riparian pla	ants for building,	
Very dependent Not dependent	l plants) dent	t on the rive	er? (e.g. fis	hing, riparian pla	ants for building,	
Very dependent	l plants) dent	t on the rive	er? (e.g. fis	hing, riparian pla	ants for building,	
Very dependent Not dependent	l plants) dent	t on the rive	er? (e.g. fis	ning, riparian pla	ants for building,	
Very dependent Not dependent Don't know	l plants) dent ent				ants for building,	
Very dependent Not dependent Don't know Would a deterior	l plants) dent ent					
Very dependent Dependent Not depende Don't know Would a deterior	dent ent oration in the cond					
Very dependent Not dependent Don't know Would a deterious	ent oration in the conc h one?	dition of the	e river syste			
Very dependent Not dependent Don't know Would a deterior of the property o	l plants) dent ent oration in the cond	dition of the	e river syste	em influence any	of your activities?	
Very dependent Not dependent Don't know Would a deterior o) If yes, which	ent oration in the conc h one?	dition of the	e river syste	em influence any	of your activities?	
Very dependent Not dependent Don't know Would a deterior o) If yes, which	ent oration in the conc h one?	dition of the	e river syste	em influence any	of your activities?	

Women

Girls

[Bathing				
	Recreation				
	Collect wood				
	Watering Livestock &				
	Crops				
	Ceremonies				
-	Other				
l					
26	. Which term best describ	es the quality of w	ater in the river	?	
	Clean				
	Dirty		_		
	Healthy		_		
	Unhealthy				
		 			
27	. In your opinion what co	ould be done to mai	ntain/or improv	e the quality of th	nis river and
	event it from pollution?				
	. [<u> </u>		
				· ·	
		···		<u> </u>	
	:				
			<u> </u>		
River Reso	urces Management-con	nmunity Model			
28	. How would you rate the	e importance of ma	intaining a heal	thy river system?	
	Very important				
	Important				
	Less important				
	No important at all				
	Do not know				
29	. Describe the community	y control mechanis	ms that are appl	lied in regard to the	he following:
Co	llection of wood along the	ne river:			

Felling o	f trees along the River:	
L		
		
L		
O1 .		
Clearing	of land along the river:	
		•
-	·	
4 / /		
L		· ·:
Fishing:		•
Γ		
	• .	
	e pi	
Hunting	along the river:	
ı -		
ligious acti	vities	
_		

	·					_	
						_	
Water quantity management:							
Water	quality manageme	nt·					

			<u> </u>				
	-		-				
River Re	esources Manag	ement-instit	utional Mode				
30. Do inst	titutions in the com	munity play a re	ole in controlling	access to and use	of a river syste	m? Yes/No	
	how important is th						
	NGO	HEALTH	EDUCATION	TRIBAL	POLITICAL	OTHERS	
				AUTHORITY	PARTIES		
Very		:					
important							
Important							
Less					_		
important			-				
						l .	
Not							
important			·				
		e je					
important	v	e je					
important Don't know	12	evected by these	a institutions?				
important Don't know		exacted by these	e institutions?				
Don't know	nportant is the role	exacted by these	e institutions?				
Don't know 32. How im	portant is the role Very important	exacted by these	e institutions?				
Don't know 32. How im	nportant is the role	exacted by these	e institutions?				

33. How would you rate cooperation amongst the various institutions in regard to the management of the

TIVET	system?
1110	System:

More	
Sufficient	
Less	
Not at all	

34. How would you rate the support of local people for these institutions in the river management?

Very strong	
Strong	
Not very strong	
Weak	
Don't Know	

APPENDIX B

RESEARCH METHODOLOGY

SAMPLING METHODS

Questionnaire Design

Semi-structured questions were used in conducting the interviews (Appendix A). Sampling was based on hit and miss technique (Bless and Achola 1988). Various community members whose ages varied from 15 to 65 and above, and across the gender divide were interviewed. This process lasted for two weeks

Data Collection

The process began with the identification of the area. The initial field survey and preliminary discussion was conducted together with the staff at Farmer Support Group (FSG) community development consultants. Having elicited information and advice on how to approach this study from the FSG staff, who have operated in the area for a long time, a questionnaire was prepared, with the objective of finding out people's perceptions to access and control of river system resources.

Inkosi Shozi, a traditional leader of the area, was informed of the study to be conducted in his area, and he gave permission for interaction with his subjects. Furthermore, a secretary of a local community based organisation (CBO), acted as a guide to various households. This made the process of data collection fairly simple. A warm welcome was offered because one was in the company of someone known in the area. The Salem community was prepared to supply information related to the area. It has to be noted that the Salem community was very humble and they seemed keen to forward the details regarding their interaction with the river.

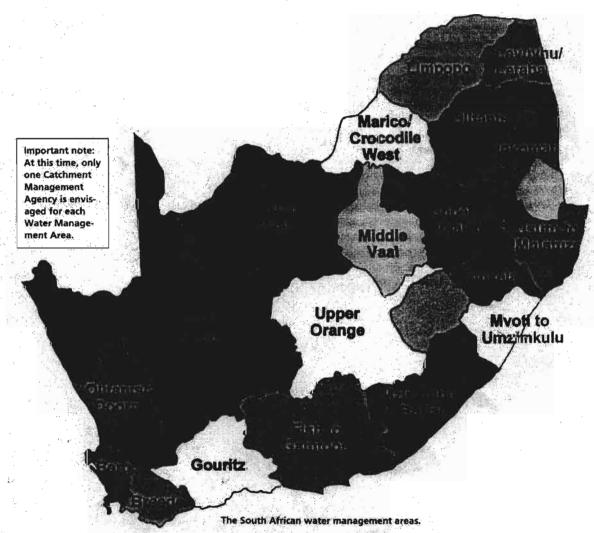
The meeting with the management of Msintsi Nature Reserve was a great success. Much was learnt about various programmes they are involved in. These include Working for Water Project whose aim is to remove alien plants so as to increase the water quantity in rivers. This programme also helps in job creation. A literature review was carried out,

focusing on documents relevant to river resource management. These include indigenous knowledge (IK), indigenous technology (IT), and the role of traditional institutions and government policy.

Limitations of the study

- The study was focussed on the Salem community. This community is part of a
 huge Umlazi catchment, forming part of a downstream sub-catchment. Some of
 the issues raised, such as the pollution of the river, are alleged to be the direct
 cause of stakeholders in the upstream sub-catchment and that required an in-depth
 study of the whole catchment which was not the mandate of this study.
- Time constraints worked against the study as more information could have been discovered had the study lasted for a longer period.
- While most of the people approached were willing to forward any information
 they know about the river, there were some who could not cooperate fully citing
 other commitments, as a result posed some constraints on the study.
- Some respondents were not comfortable with the interviews as they thought that their contribution could be used to implicate them in one way or the other thus damaging their relations with the local leadership.

APPENDIX C



NB: There are 19 water management areas in total.