REDEFINING LOCAL COMMUNITIES IDENTITY, ASPIRATIONS AND INTEREST IN PROTECTED AREA MANAGEMENT: A STUDY OF THE DOUBLE DRIFT GAME RESERVE

By

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DECLARATION

I declare that this dissertation is my own original work, except where stated and that it has not been submitted for any degree in any other university.

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ABSTRACT

The protectionism approach often adopted by protected area management systems has compounded the problems of poverty, dis-empowerment and population pressure in the neighbourhood communities. Consequently there has been growing dissent to this mode of conservation from the underdeveloped rural communities, who have often paid high price for protection of the given resources, this problem has been further exacerbated by local communities exclusion from decision making process, resource sharing and appropriation of economic accruals from protected areas. This study (located in the Eastern Cape, South Africa) therefore seeks to investigate and recommend avenues for integration of local communities into the entire framework of sustainable protected area management. Use of questionnaires, focussed group discussions and interviews with key informants were used to achieve these objectives. The results from fieldwork indicate that the local communities needs, interest, potential and aspirations are not incorporated in the management of the Double Drift Game Reserve. This study recommends adequate participation in decision-making, genuine efforts towards socio-economic empowerment and sensitivity to local communities needs in planning, administration and operation of the Double Drift Game Reserve.

ACRONYMS

AVKR -Andries Vosloo Kudu Reserve

CAMPFIRE -Communal Area Management Plan for Indegeneous Resources

CBO -Community Based Organisation

CLO -Community Liaison Officer

CNC -Cape Nature Conservation Trust

CONTOUR -Ciskei Nature and Conservation Trust

DDGR -Double Drift Game Reserve

DNFFB -National Directorate of Forestry and Wildlife

DRC -Democratic Republic of Congo

ECNC -Eastern Cape Nature Conservation

ECTB -Eastern Cape Tourist Board

GFR -Great Fish River

GFRC -Great Fish River Complex

ICEF -Inxuba Conservation and Economic Forum

ISER -Institute of Social and Economic Research

IUCN -International Union for Conservation of Nature

MGP -Mountain Gorilla Project

NGOs -Non-Governmental Organisations

PA -Protected Area

PNV -Parc Nationale des Virunga

PRA -Participatory Rural Appraisal

SADT -South African Development Trust

SKR -Sam Knot Reserve

WWF -World Wide Fund for Nature

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CHAPTER I

INTRODUCTORY CHAPTER

The creation of National Parks and game reserves is slightly over a century old. The first National Park; Yellowstone, was proclaimed in the United States in 1872. The growth of National Parks and game reserve movement continued slowly until the Second World War. After the end of the war however, the number of game reserves around the world began to increase sharply (Dixon and Sherman, 1990:9).

In Africa, the first protected areas (PAs) came with colonization, most of them being created from local people's homelands. Regrettably, many were created without consultation with the local communities who lived in or near the parks; whether they were by definition indigenous or long-term residents (Kempf, 1993:5). Ironically it was these people who for millennia were the custodians of these areas declared as national parks and reserves. Often when protected areas were established the interests of locals were ignored to the detriment of the conservation initiatives as well (Kempf, 1993:5; Meffe and Carrol, 1996:298).

Although many African countries have since 1940s come up with impressive blue print strategies on how to involve local communities in collaborative PA management and benefit sharing, conversion of these blue prints into action plans has so far been unimpressive. This has consequently resulted to problems of PAs encroachment and resource use conflicts resulting from three basic issues that underlie many African countries difficulties to utilise and improve their environments, namely,

poverty, need for land and the development process (Dixon and Sherman, 1990:63).

In South Africa the socio-ecological conflicts on PA resources can further be attributed to the legacy of forceful land dispossession, discriminatory allocation of resources and rural segregation that characterised PA conservation laws during apartheid era (Fetsha, 2000:1).

Conservation initiatives are however unlikely to succeed in the medium and long term unless they are sensitive to the prevailing socio-economic, cultural and political landscape at the sites of the initiatives. This therefore creates the need for recognition of local communities as important stakeholders in the entire process of PA establishment and management.

Background and location of the study area

Location of the study area

The study area borders and involves part of the Great Fish River Reserve Complex (GFRC) in the Eastern Cape of South Africa (map 1). It is located in the Eastern Cape, 27km, south of Alice and 40km north east of Grahamstown along the frontage of the Great Fish River (map 2).

Initially known as L.L. Sebe Game Reserve, the Double Drift Game Reserve (DDGR) was formally established in 1982. The 21,000-hectare reserve comprised of more than 10 farms acquired by the South

African Development Trust (SADT) in the late 1970s and early 1980s. Although the area was officially proclaimed as a game reserve in 1987, the former Ciskei government through Ciskei Nature Conservation and Trust Board (CONTOUR) had managed wildlife informally since the reserve's inception in 1982 (Eastern Cape Nature Conservation, 1998:7).

Between 1987 and 1990 more than 400 labourers of the previous white farmers were relocated with compensation (except some Tweni residents). In 1990 game-proof fence was erected and large expansive herbivores introduced. From 1990 to 1993 the Double Drift Game Reserve was run in partnership with a private entrepreneur, but this contract was terminated in 1994.

In 1993, a joint management committee was initiated and the process to manage the three reserves, DDGR, Andries Vosloo Kudu Reserve (AVKR) and Sam Knott Nature Reserve (SKR) as a single commercial unit was initiated. By 1995 the first joint management plan had been drawn up. Until 1998, the GFRC was managed by different agencies with slightly different management philosophies and missions. Eastern Cape Nature Conservation (ECNC) managed the AVKR and SKR while Eastern Cape Tourism Board (ECTB) managed the DDGR. However, with the new plan for amalgamation of the three game reserves, the two bodies will manage all of them as a single unit (Eastern Cape Nature Conservation, 1998:7).

The DDGR is surrounded by nine main village settlements, acccommodating approximately 20,000 people at an average density of 70 people per Km^2. Three of the villages, Qamnyana, Ndwayana and Gwabeni are situated along the south-eastern border of the game reserve (map 2). Glenmore, situated on the southernmost tip of the reserve, is a resettlement community established between 1976 and 1986 on the SADT land (Cocks, 1999:104).

On the eastern and northern boundaries are three villages. Sheshegu, Nomtayi and Ncabasa (map 2). Sheshegu and Nomtayi underwent the *betterment program*[1] and as a result, residential plots were marked out and land was allocated as fields and commonage. Nomtayi is a relocation village of former farm workers from the DDGR. Ripplemead, situated on the south-eastern side of the Reserve came into existence as a result of a labour intensive irrigated citrus farms on the banks of Keiskamma River. Tweni village is located in the eastern side of the Reserve and is awaiting relocation (map 2).

As mentioned earlier, whereas the DDGR was under the management of the former CONTOUR, the defunct Cape Nature Conservation (CNC) on the other hand managed AVKR and SKR. The dual management of the reserves had significant implication on the way the

[1] Introduced by the apartheid government in 1930, it was designed to improve agricultural practices and increase production by designing distinctive demarcated and fenced sections into residential, arable and grazing. It contrasted the typical Bantu scattered settlement pattern.

reserves were managed, and in turn the relationship between the reserves and the surrounding local communities (Cocks, 1999:107).

In accordance with the restructuring of nature conservation departments in 1996, new community liaison programs were adopted and the Eastern Cape Tourist Board (ECTB) employed Community Liaison Officers (CLOs). The CLOs responsibilities were, among others, to improve relations between the reserve managements and surrounding communities. Unfortunately, many of these officers received inadequate training and little financial support or supervision. Most of their efforts were concentrated in environmental education programs with school children. The few attempts made to initiate projects in the neighbouring villages never got off the ground due to lack of community support, inefficient grass root capacity and lack of resources (Cocks, 1999:107).

Settlement forms and categories of land use in the study area

The Great Fish River region can be conveniently discussed under three historical and political criteria. These criteria have determined subsequent patterns of settlement, population distribution, and land use management systems. First, are the Tyefu and Sheshegu areas, which were reserved for black settlement in the colonial, union and apartheid eras. The land is used as subsistence rangeland with limited dry land cultivation practiced on communal allocation basis. Population density of over 70 persons /km^2 in these two areas is generally high. Another

densely populated area is Glenmore, a resettlement community on a *released*[2] white farm adjacent to Tyefu location (Ainslie, 1994:1).

The second division are the "released" farms, which were incorporated into the contiguous areas of Ciskei in the 1970s and 1980s. Population densities of these areas are about 3-6 persons /km^2. As these communities are adjacent to the communities mentioned above (Tyefu, Sheshegu and Glenmore), there is obvious pressure to increase either of people or stock into these areas. Some of the areas in this category were incorporated into the DDGR, which is seen by adjacent communities as a barrier to the acquisition of more land (Ainslie, 1994:1). Land use in these areas (Qamnyana, Gwabeni, Ripplemead, Nomatyi, Sheshegu and Ncabasa) is mainly agricultural. Tweni, community has limited access to land for grazing. Their stock graze in designated reserve area and crop cultivation is non-existence (Fetsha, 2000:10).

The third division is the remaining white farms on the western side of the Fish River; these areas are still farmed largely as rangeland with some private irrigation of crops (Ainslie, 1994:1).

[2] After the end of the apartheid era in 1994, some white commercial farmers surrendered farms to be reallocated to black people.

An overview of the villages surrounding the DDGR.

There are nine main villages surrounding the DDGR namely;

Qamnyana

This is a Xhosa-speaking village established in 1835 as a buffer between the Rharhabe Xhosa and the settlers who colonised the frontier in the later and early part of the 19th and 20th century respectively. The village sections are spread out over several plateau ridges. It will be understood if they have strong feelings to the establishment of the game reserve as they lost large tracts of land now part of the DDGR (Ainslie, 1994:2).

Gwabeni

Much of the circumstances as found in Qamnyana are also found here. The community of Gwabeni makes claim to the specific area of land known as the Breakfast Vlei out span. Half of this area falls within the DDGR (Fetsha, 2000:9).

Glenmore

Is a resettlement camp of people forcibly removed from the areas presently known as Kenton-on-Sea, Coega and Colchester. These people have no historical claim to the land in the area. They are least hostile towards the nature conservation authorities (Festha, 2000:10).

Ripplemead

This is a settlement that grew with the development of the Ulimocor-initiated, labour-intensive irrigated citrus farm on the banks of the Keiskamma River. The community does not border the reserve, but some people do gain employment there. Their livestock herds graze on released areas formerly occupied by white farmers but now managed as communal rangelands adjacent to the DDGR (Ainslie, 1994:4).

Nomtayi

This settlement is made up of former farm staff and their families and relatives on the Klipfontein farm. About a half of the farm was included into the DDGR when it was established hence some of the community members were not removed from their current settlements. Nevertheless they lost access to the fields, which the farmer allowed them to cultivate (Ainslie, 1994:10).

Sheshegu

This is a large settlement situated 4km from the Northern fence of the DDGR. Most people view the reserve with hostility because they see it as having robbed them of grazing land. They resent the leasing of farms bordering their village to individuals perceiving it as an encroachment on their livestock grazing area (Ainslie, 1994:3).

Tweni

Tweni/Naudeshoek formally belonged to a white farmer. This community lives within the reserve boundaries on the north-western tip of the reserve awaiting relocation (Fetsha, 2000:8).

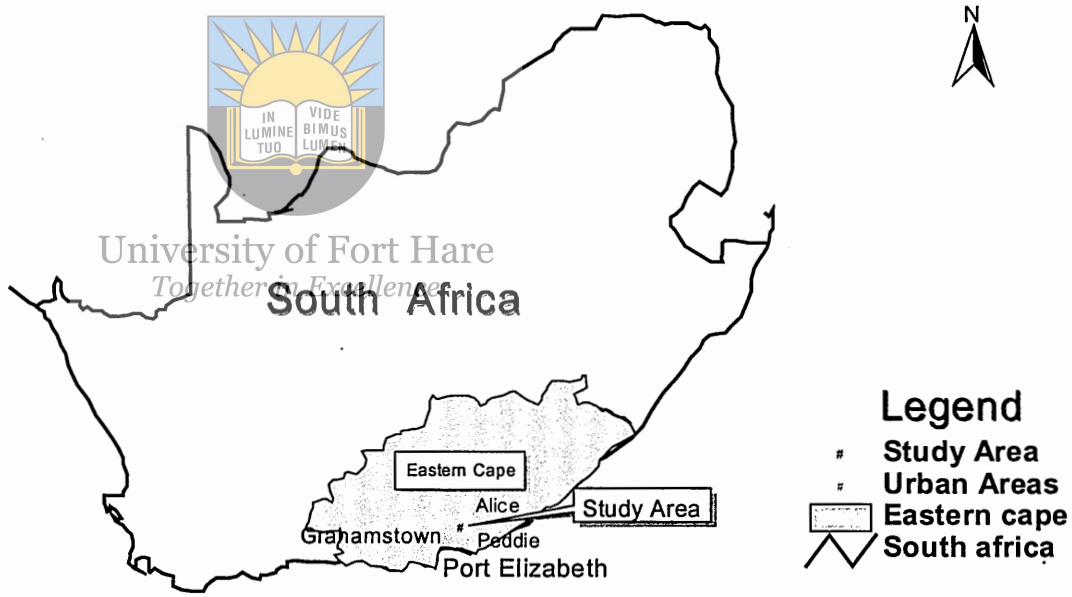
Ncabasa

This is an extension of an expansive village on the western bank of the Keiskammahoek River, with the reserve on its southern side. They used to graze their livestock and extract some of the resources in the area now occupied by the game reserve. They see the DDGR as an opportunity for more grazing land.

Ndwayana

This village is situated along the south-eastern border of the reserve (map 2). The settlement pattern of this village is one of dispersed groups of dwellings with livestock husbandry as the main economic activity.

Map 1 Study Area



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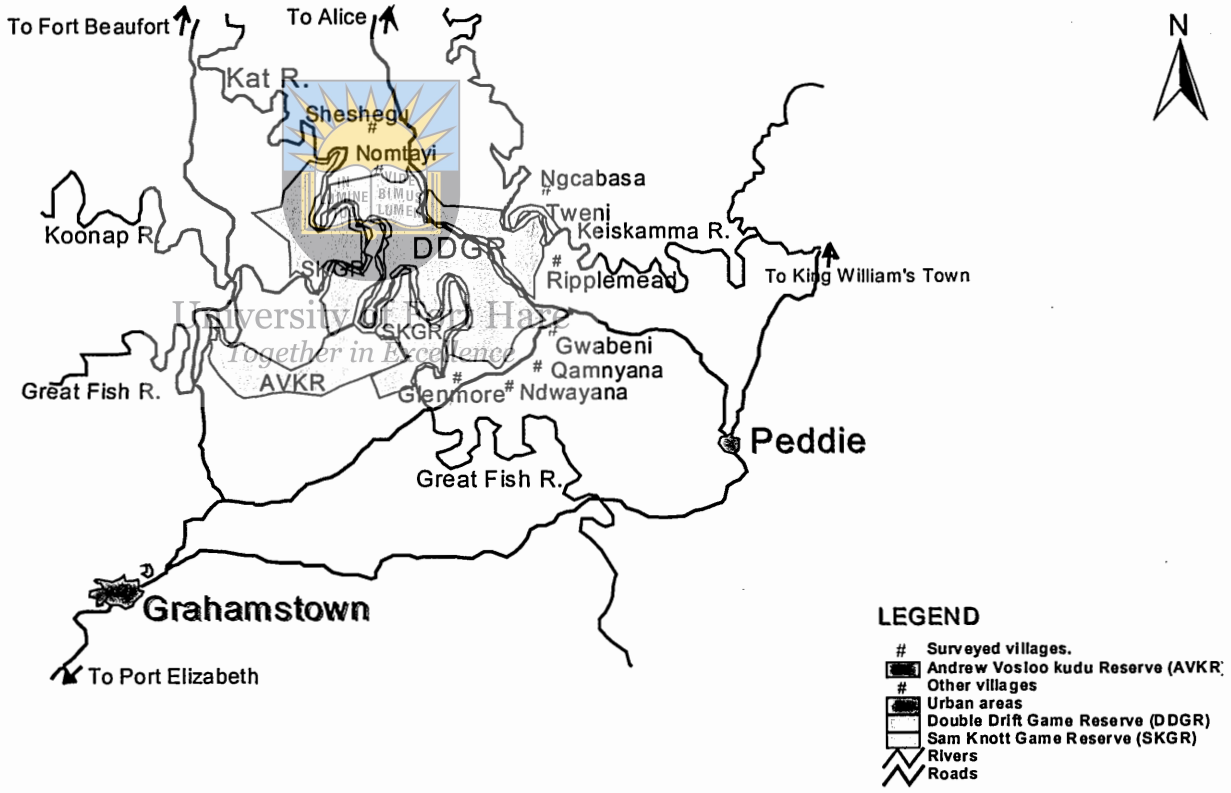
Map 2 Double Drift Game Reserve within the Great Fish River Complex and surrounding the villages



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DDGR management framework vis-à-vis the wider GFRC

Two different conservation authorities, the CNC and CONTOUR managed the three reserves. The two bodies had different philosophical approaches to nature conservation (Ainslie, 1994:5). AVKR and SKR managed by CNC; a then department of cape provincial administration (the civil service) adopted an approach of strict scientific PA resources management without involvement of other stakeholders like the local communities. DDGR on the other hand was managed by CONTOUR; it was run along the lines of a game ranch, with emphasis not on ecological purity or preservation but on financial viability. At a practical level the two authorities had differing legal structures for law enforcement, different staff salary structures, different systems of zoning, conservation management and number of field managers (Ainslie, 1994:7).

Proposed amalgamation of the three game reserves

A draft management plan for what is being called the Great Fish River Complex (GFRC) has been under negotiation. According to the plan, decisions regarding wildlife management, including game utilization and the re-establishment of species will be based on management consensus using best available historical data, surrounding neighbour's opinion, environmental factors and other practical considerations. The reserve complex management committee will ratify all the decisions (Ainslie, 1994:11).

The plan addresses some of the critical issues that deserve attention. These include:

i) Making the complex more financially accountable so that it is not a burden on the regional government.

ii) Setting out broad goals and a plan of action to develop and position the complex in relation to the anticipated "tourism" boom in the region as a whole.

iii) Addressing the issues of relevance of the reserve complex through envisaged projects that recognize the need for economic up-liftment in the neighbouring communities and not just making available what are essentially superfluous natural resources on the reserve (Ainslie, 1994:11).

Local peoples claim for the reserve and its resources

Several communities around the DDGR make claim to the whole area of land taken up by the game reserve. These include villages of Qamnyana and Gwabeni. Recorded history suggest that the fore fathers of these people who were of Mfengu origin, settled in the area after 1885 when 18,000 Mfengu people were led across the Keiskamma River into the Cape Colony by missionary John Ayliff. Mfengu village settlements were established as buffer between the Rharhabe Xhosa and colonial settlers. The claims to land based on this historic settlement were violated when the land adjacent to these villages was surveyed and leased out to the settlers as quitrent farms from the 1870s onwards.

In 1990, the DDGR began to erect game fences and evict people from the reserve in perception for the arrival of lions and elephants regarded as "big and dangerous animals" (Ainslie, 1994:13).

This loss of land is a point of contention particularly for the people of Qamnyana and Gwabeni, although other villages were also affected (Ainslie, 1994:13). Authorities argue that since there are dangerous animals in the reserve, they need to control access to the area to prevent possible human loss. The main reason, given the task of conserving natural resources in the reserve, is that authorities have to limit resource extraction so that the resource base is not adversely affected.

To help deal with PA resource contention, the DDGR has often engaged on and off donations (like occasional provision of meat to community members). This has helped keep the lid on people's hostility towards the reserve, but has failed to make a significant contribution to their socio-economic development due to lack of functional institutional linkages at the grass root, district and provincial levels (Ainslie, 1994:13).

Statement of the problem

Creation of PAs as a way of nature conservation that started in the early 20th century has become the most popular conservation strategy in Africa. In this mode of conservation, local communities who form one of the largest, and perhaps the most crucial group of stakeholders have often been ignored from the entire process of protected area management (Fetsha, 2000:1; Kempf, 1993:5). The unpopular top-down approaches to bio-diversity conservation have typically by-passed the legitimate rights and concerns of the people living with and among the given protected area resources.

The protectionism approaches often adopted by PA management systems have restricted poor communities from resources of survival. This has compounded the problems of poverty, disempowerment and population pressure in the neighbourhood rural communities. Consequently, there has been growing dissent to the wildlife protectionism's mode of conservation from underdeveloped rural communities, who have often paid high cost for the protection of wildlife (Tapela and Omara-jungu, 1999:148). This problem has been further exacerbated by lack of comprehensive strategies that are geared towards legitimising the local communities' role in decision-making, resource sharing and appropriation of economic accruals from PAs. Access to PAs is also curtailed hence impacting negatively on communities' socio-economic and cultural lives. All the villages surrounding the DDGR are characterized by poverty, environmental degradation, very low or non-existent levels of economic activity, a heavy dependence on urban earnings and welfare payments, high

unemployment, poor infrastructure and desperate lack of basic services (Fetsha, 2000:11). Although a lot of income is generated from these areas (just like other PAs tourism areas), very little is channelled back in aid of socio-economic development of these communities.

Hypothesis

This research is based on the hypothesis that the local people's interest, aspirations and potential have not been fully incorporated in the management of DDGR. Success in PA management, is therefore dependent on harmonious co-existence between the local communities and a given PA resources based on appropriate resource management strategies.

Aim and objectives of the study

The aim of this study was to assess the socio-economic and cultural relation of the local communities surrounding the DDGR vis-à-vis the PA resources. To help achieve this goal, the studies main objectives were to;

-Identify the influence of PA policies on local people's perception of the DDGR.

-Explore the perceived importance of local peoples natural resource tenure in the management of the DDGR.

-Examine alternative models of local community participation in relation to their socio-economic and cultural empowerment.

-Identify and evaluate the role of decentralised decision making as well as Community Based Organizations (CBOs) to the management of the DDGR.

Significance of the study.

Whereas balancing bio-diversity conservation with local communities socio-economic development has long been a goal in theory, efforts to reach it in practice have frequently ran into difficulties. There seems to be a significant lack of basic understanding about the process of collective participatory and integrative management. The identification of legitimate stakeholders, effective integration of traditional and modern knowledge about natural resource management and the initiation of negotiation process with stakeholders themselves are some of the practical problems of collaborative management. On one hand exists insufficient information for planners concerning approaches to participatory management and on the other hand less information accessible to the most directly affected stakeholders.

In this regard, the study will assist contemporary natural resource managers and local communities to engage in genuine reciprocal strategies that will encourage voluntary communal participation in the management of PA resources. It will also strive to come up with sustainable proposals that will help alleviate both medium and long-term natural resource use conflicts in PAs. This study will also aid concerned stakeholders to design strategies that will enhance socio-economic and cultural development through natural resource

management and bio-diversity conservation. Lastly, the study will add to the pool of existing knowledge on sustainable protected area resource management.

Delimitation

-Although several development efforts by the government exist in the area, empowerment initiatives to be surveyed will be restricted to those initiated by the DDGR.

- Although the DDGR is in the process of being merged into the wider GFRC, the study will be restricted to the DDGR. This is due to the fact that the other two reserves (AVKR and SKR) are bordered by commercial farms and very few villages.

Theoretical framework

Sustainable development of global resources is not only an ecological, economic or social concern distinctively, it is a combination of all the three considered together. Sustainable initiatives driven by conservation interests often ignore needs for an adaptive form of economic development that emphasizes human economic enterprise and institutional flexibility (Holling, 2000:1). Initiatives driven by economic interests often act as if the uncertainty of nature can be replaced with management controls or ignored all together while driven by social interest can act as if community development and empowerment of individuals encounters no limits. Although not wrong they are just too partial. Each group builds its efforts on theory. The conservationists depend on theories of ecology and evolution, the developers on variant free market models, the community

activists on theories of community and social organization. These distinct theories further add to the partiality.

In this regard there is need for an integrated theory that can serve as a foundation for sustainable futures; a theory that recognizes the synergies and constraints among nature, economic activities and people (Holling, 2000:3). The emerging integrative theory should be based on concrete development, empirical reality and clear communication. This should consider ecological, economic and social issues as an essence. The theory should therefore involve the interaction between nature, socio-economic development and people. The emerging theory should seriously consider fostering adaptive capabilities and creating opportunities within the natural resources capability. In this regard efforts to seek integrative PA management theory will have to be based on ecology, economics and social science by attempting to acquire an in depth understanding in all the three fields (Holling, 2000:5). Although the theory of sustainable development can be seen from a wider perspective as an attempt to pursue socio-economic development and conservation concurrently, its vagueness and ambiguity makes it deficient of precise solutions on problems bedevilling local communities and PAs.

Chapter outlines

Chapter one is the introduction to the study and gives an overview of the background to the problem. This chapter also outlines the objectives, significance, scope and limitations of the study and the theoretical framework.

Chapter two gives an overview of the documented studies and the literature available and consulted.

Chapter three deals with research design and methodology used in this study. It covers population description, nature of data collected, sampling procedure and instruments of data collection. It also includes methods used in data analysis.

Chapter four presents the findings. This section involves analysis of data as per the objectives. Different means of presentation are used including among and plates and use of descriptive statistics that include percentages and averages.

Chapter five data deals with analysis of data and recommended suggestions.

SUMMARY

This chapter introduces the context of the problem, history and location, and statement of the problem. The chapter goes further to give the hypothetical basis of the research, its aims and objectives as well as its significance. The researcher concludes this section by delimiting the study, providing a brief theoretical grounding of the research and finally how the remaining chapters will unfold.

CHAPTER II

LITERATURE REVIEW

INTRODUCTION

This chapter intends to gather and critically analyse the available literature on issues of local communities integration into protected area management. The aim of the chapter is to provide an in-depth understanding of the theoretical and practical issues under investigation.

From communal traditional ownership to centralized PA management system

Origin of PA in South Africa

For many years the peoples of South Africa have practiced conservation. Evidence suggesting the elaborate natural resource management system by indigenous African people such as the San and the Khoi prior to colonization is overwhelming (DEAT, 1997:Chap 1:1.3). Typically, African traditional societies were for the most part dependent on natural resources that included the wildlife that surrounded them. These were backed by political systems that generally included sets of rules and procedures designed to regulate the use of the available natural resources. Notable examples include the hunting preserves for the Zulu and Ndebele royalty (DEAT, 1997:Chap 1:1.3). A rich folklore reflected the close relationship between traditional societies and nature. This linked people to the environment ethically, spiritually and culturally. Unfortunately this system changed substantially with colonization (DEAT, 1997:Chap 1: 1.3).

The first official protected areas in South Africa were forest reserves of Knysna and Tsitsikama, which were proclaimed in terms of the Cape Forest Act of 1888. Establishment of forest reserves in Natal in 1891, Orange Free State and Transvaal by 1903 followed these. Also established at around this time were Pongola and Sabie (later Kruger National Park) in Transvaal in 1894 and 1898 respectively, the Huhluwe, Umfolozi and St Lucia Game reserve in Zululand in 1895 and the Grant's Castle in Drakensberg in 1903 (DEAT, 1997:1:1.3).

After the union in 1910 the central government assumed conservation responsibility and in 1926 the first national park Act was promulgated. This Act never matched a sustainable development objective, as the subsequent PA establishments were often accompanied by forced removals and resource dispossession from the surrounding communities. The dominant approach prevailing during this period was that protected areas had to be "pristine", fenced off areas. Since then such approaches have resulted in the widely held perception that protected areas are playing grounds for the privileged elite. This perception became even more pronounced in the entire African continent during colonisation (DEAT, 1997:1:1.3).

Colonialism and PAs in Africa

Game reserves and national parks used to be run almost entirely by colonialists, they were therefore regarded as being administered exclusively in their interest. This has contributed to the racial connotations, which often colours African thinking on game (Kempf, 1993:53). The colonial institutions and power structures reversed the flow of ideas on resource practice. A centralized system of colonial government replaced the original grassroots

approach, which led to development of traditional resource use techniques amongst the pre-colonial communities. This meant that, resources were increasingly exploited with western perspective and often with little knowledge and consideration of local ecology and environmental relationship. Wildlife laws in Africa were usually first passed by colonial administrators. This often resulted in the enclosure of land in the attempt to form pristine areas for wilderness. Local people were evicted to new areas, often without compensation for the loss of property, land titles and traditional hunting rights. In the eyes of local-people, colonial wildlife officers favoured the protection of animals over welfare of human living around the newly created PAs. This problem was particularly acute because by then, most wildlife remained on marginal land whose occupants were poorly integrated into the mainstream economy. Such disenfranchisement occurred throughout Africa (Thomson, 1986:176). According to (Western and Wright, 1994:163) the carving of large PAs out of native people's land without any local involvement, made possible by restrictive legislation and heavy-handed sanctions is a classic example of earlier approach. Colonial powers, virtually everywhere in Africa neglected the potential of indigenous knowledge. Western and Wright (1994:163) further observed that colonialists who concentrated their efforts on crops and livestock from Europe saw little need to learn from the indigenous people. After an initial exploitation phase, Africa's wildlife came to be regarded as recreational game goods with European colonialists favouring state and private-property system rather than indigenous systems of communal resource management. This continued into post-colonial era.

Post-colonial conservation dilemma

The independent states of sub Saharan Africa somewhat maintained the principle of state control of wildlife estate (Metcalfe, 1992:1). In doing so they served the tenets of conventional western wildlife conservation and learnt little from the rural development experiences occurring all around the parks. Consequently, the parks and park management became inconsistent with the local development effort like in the case of emerging community based natural recourse management.

Metcalfe (1992:9) observes that population growth, poverty, lack of representation, un-viable local market economies and good planning combine with weak enforcement to contribute to woes experienced around protected areas. He recommends that if these islands were closely linked to local land use planning, they could contribute to local development and might greatly enhance local appreciation to the value of the bio-diversity. This has led to establishment of a wide array of conservation policies. However, most of these policies have failed to achieve the intended objectives.

Failure of the conservation policies framework

By 1980s and 1990s it became clear that very many of the protected areas imposed against the will of local residents were failing to achieve their conservation objectives. To align this with changes in international conservation laws, the International Union for Conservation of Nature (IUCN) revised its system of categories of PAs to accept local people's ownership and management of protected areas and not just state agencies as previously required. The World Wide Fund for Nature (WWF) further adopted new policies and resolutions that strongly endorsed local people's rights and

promote the co-management of PAs based on negotiated agreements (Brown, 1998:33). Putting these principles into practice, however, has remained easier said than done.

The narrow conception of PA policies; defined in relation only to the PA resources and exclusive of environmental set-up has put many people's lives at risk. Socio-economic activities of large sections of inhabitants of surrounding communities are closely bound up with natural environments, many of them deriving livelihoods directly from the given resources. State paternalism by conservation managers has been justified, with their disparaging of 'traditional' peasant ecological knowledge to teach local people 'modern' conservation practices (Meffe and Carrol, 1996:224). The high degree of state power over the environment has translated into the absence or removal of avenues for input and any form of fair contestation by the local people.

In many PA set-ups, the laws automatically extinguish residents' rights on natural resource use, free movement and access. Apart from policies and laws being exclusionary and prohibitive, they also do not recognize customary institutions or role of customary skills, knowledge and rights in land and natural resource management. Policies and laws are premised and informed by conventional economic efficiency paradigm (Meffe and Carrol, 1996:224).

According to Krishna (1998:5), policies that foster the practice of participatory management are either ineffective or lacking in most African conservation policies. In this case, appropriate integrative policies and legislation that support participatory management are crucial to sustainability of future PAs.

Dialogue on PA management need to be located in a vertical dimension (Western and Wright, 1994:440), the failure in most environmental policy discussions is that they do not start with logic in identification of the level of "political hierarchy " that is national, regional and local levels. Most environmental policies fail to articulate a coherent reason why practically all policy dialogue is centralized at national level. It presumed that the entire decision making framework need to be stationed at the national level while regional and local levels are ignored. It is assumed that the latter are subservient that no conversation dialogues need to be held there. The failure of most conservation policies is therefore due to governments' presumption that they are the only entity "competent" to protect biological resources.

Ultimately, improvement in bio-diversity management can only come about through policies that attempt to integrate local communities concerns into regional, national and international policy framework. This would include such issues as land tenure, equitable sharing of benefits of PA resources and providing conducive environment for the communities to apply their cultural resource management (Chambers, 1994:11).

Bellamy et al. (2001:410) recommends that such polices should be found on four basic principles:

a) Support purposeful and informative stakeholder prescription.
b) Create improved opportunities for incorporation of ongoing learning process at individual, organizational and policy levels.
c) Facilitate negotiation and mediation processes between stakeholders.
d) Support the move towards better outcome including the

amelioration in manageability of problems.

Policies that accommodate local people's interest will most certainly have an impact on their perception, which will in turn determine the success or failure of a given PA.

Local people, policies and perception

In many African countries (Krishna, 1998:5) policies related to protected areas do not recognize that bio-diversity conservation and peoples livelihoods could co-exist for mutual benefits. In fact, conservation policies have often alienated people from their rightful territories. Centralized top down approaches to conservation have often ignored the fact that local communities depend largely on the resources to be conserved, these policies have also tended to ignore traditional beliefs and knowledge, many of which have enormous significance for conservation.

Policies drafted by central government officials may be poorly communicated to the local agencies responsible for their implementation. Thus regulation that may be clear to the official who developed it and the political authorities who approved it may be interpreted entirely differently by local implementing officials and the local communities on the ground (Buckles, 1999:267). Buckles (1999:267) suggest that information should play a catalytic role in perception change. The process of exposing, validating and sharing information about the resource base and its use is in all cases a crucial first step in the process. Typically, the various parties in conflict do not share a common set of data. Buckles (1999:267) argue that although information alone is insufficient to lead to a resolution of change in perception, it is a prerequisite in building consensus-based plans. It improves the understanding

of all parties and engages the attention of those at the periphery. Any PA policy should consider a comprehensive definition of local peoples right to a given PA resource.

The role of natural resource tenure in PA management

The national park and game reserve concept was imported into most third world countries with no regard for aspirations of local people (Buckles, 1999:269). As a result, the game sanctuaries are surrounded by human populations that look at them as waste lands which could be put to "better" use. This conservation concept is problematic in areas where a rapidly expanding population requires more land for food production and settlement.

A major challenge for conservationists is therefore to explore means structured resource use incentives in situations which communities have no state recognized PA resource rights. Conservationists need solid understanding of dimensions of tenure (particularly community based tenure), the existing range of relationships between tenure and conservation and the procedural challenges that may face them (Western and Wright, 1994:373).

It is unlikely that vague appeal for greater community participation or community-based management will succeed if they gloss over basic tenure issues. By the same token, local communities are less inclined to entrust regulation of their ancestral domain to outside "experts" and management agencies when they see themselves as increasingly capable of setting resource management policies and policing of their environment (Chambers, 1983: 63).

Community based conservation implies that local communities can design and execute management decisions. Communities must have or gain tenured security in order do this, either by themselves or as members of decision-making boards that include other stakeholders. Tenured rights may be held by the state, co-operative, extended family (clan) a neighbourhood or community.

The distinguishing character of community based tenure system is that they draw their primary legitimacy from the community in which they operate and not from the state or regional authorities in which they are located. In other words, local participants, and not national government are the primary allocators and enforcers of local rights to resources (Western and Wright, 1994:374). The advantage of private community based-property rights is that there is usually more local control and less government regulation than if property rights were deemed public and owned by the state (Western and Wright, 1994:376).

While protected area resources may be owned by the state or by the local communities on paper, the people who live in a given area often determine what happens to the resources. The tenured security necessary for effective community based conservation does not only mean rights on paper, but also state acceptance and exercise of its responsibility to assist communities in exercising their rights to defend their territorial claim and their bio-diversity (Western and Wright, 1994:377). When communities have traditionally managed resources sustainably, government claims may destroy any incentives to continue doing so. Without official recognition, communities do not have access to their formal legal structure to exclude those who encroach.

Operational community resource tenure initiatives require well functioning decentralised structures that recognises the local communities input in decisions taken at the grass root level.

Role of decentralization and bottom up approach in collective PA management.

Building consensus or mobilizing a community is an arduous task. The obstacles range from simple tension to outright conflict of interest among the participants. A true diagnostic characteristic is therefore a shift of locus of decisions from the top (government, institution, and donors) to bottom (local communities). According to lessons to be found in development projects, success in community development has been much greater when decisions, plans and implementation of projects involve community participation classic examples being the Communal Area Management for Indigenous Resources (CAMPFIRE) in Zimbabwe and the Luangwa Conservation Project in Zambia. However almost all top-down projects that exclude community involvement fail (Knight et al., 1997:93).

Imposing environmental management strategies from national or even provincial level can be detrimental to sustainable use of natural resources at the local level. Local stakeholder participation is central to the development of environmental management and policy (Knight et al., 1997:93). It is therefore essential that the establishment and exercise of the right of free association and organization of people into self-defined, legally recognized entities be encouraged. These should be geared towards ending the era of government created and government controlled entities as the only legitimate organizations. Decentralization requires de-concentration or hand over of

some authority to lower levels within the government structure. This translates to increasing the scope of departmental, technical, ministerial, and lower-level judicial structures (Western and Wright, 1994:363).

Too often, decentralization of resource management activities has been misconstrued as devolution of authority from centre to the periphery while power remains at the centre. Decentralization then results in further concentration of power as technical ministries and central authorities carry out policies and programs from the top placing them to representatives in local areas. For the communities, this type of decentralization means more responsibility in the management and implantation of activities but little real authority to affect resources use (Western and Wright, 1994:363). Some important indicators of genuine decentralization must include the extent to which financial decisions and revenue raising activities are given over to local communities, community authority to negotiate with external bodies (including regional and central government entities) and community power to sanction resource offenders as well as reward favourable practices.

Institutional framework at grass root level

Most studies on wildlife conservation have concentrated on generating technical innovations on aspects of wildlife like size/area of conservation, animal densities, forage abundance and plant diversity. Conservationists have given very little attention to organizational and management innovations that would preserve wildlife within the cultural and economic context of local people. Consequently, very little research exists on different ways of organizing the resource, linking it to development in specific local and

national context and finally mobilizing local populations to utilize the resources in organizational forms they control (Kariro and Juma, 1991:171).

While many local Non Governmental Organisations (NGOs) have accomplished much good against great odds on this front, others unfortunately appear to be ad hoc enterprises formed for primary purpose of employing staff with foreign money aid. This therefore creates a need to channel any form of assistance to trusted local councils and locally reliable organizations. Existing institutions can prove cheaper and more efficient in the long run. It is better to strengthen local institutions than create new ones. Mc Neely (1988:14) suggests that full incorporation of local people as full-fledged partners in conservation initiatives should build on foundations of local communities, give responsibility to local people and consider returning to or sharing ownership of some protected area resources with local people.

In cases where local organizations are not community based, a conscious effort has to be made to use national NGOs and local research organizations in design and implementation and in some cases to monitor and evaluate activities (Western and Wright, 1994:365). This type of co-operation helps to ensure dialogue over issues and make sure that community participation is not dominated by expatriate researchers and institutes. It also ensures that local research and monitoring efforts will be sustained after the expatriate personnel withdraw (Western and Wright, 1994:365). Furthermore financial burden of the project is reduced since unnecessary additional numbers of expatriates are not brought in to run the projects.

Sustainable interaction entails continual monitoring, learning, decision-making and reorganization, aimed at ensuring that social organization and PA resource systems co-evolve along a path with favourable outcomes for people (Kariro and Juma, 1991:139). Consequently, participation in the existing conservation institutions will depend on the socio-economic returns reaped from the existing institutional arrangements

Role of PAs in the communities' socio economic development

Local communities especially those who live in and around protected areas have long-standing relationships with the given areas. Local communities may depend on resources of these areas for livelihood and cultural survival, these relationship embrace cultural identity, spirituality and subsistence practice, which frequently contribute to the maintenance of biological survival and diversity. The relationship has often been ignored and even destroyed by resource conservation and management initiatives (IUNC, 1993:252). Since, protected areas have sometime been established on lands possessed by local people, it is worth noting that such protected areas cannot co-exist with communities that are hostile to them. However, they can achieve significant social and economic objectives when placed in a proper context. The establishment and management of protected areas and use of resources in and around them must be socially responsive and just. In many cases, continuation and development of human activities in protected areas should be accepted in so far as they are compatible with conservation objectives. Community participation and equity need to be achieved in the entire decision framework of protected area management (IUCN, 1993:252).

It has become clear that PAs will no longer be protected islands but should satisfy the habitat requirements of threatened species and meet certain basic human needs. According to Cesario (1996:25) the current options of conservation agencies of allowing substance harvesting, sharing profits and redistributing land are all fraught with administrative and economic problems. None provide jobs, none appeals to serve the ideal goal of stimulating local development and entrepreneur opportunities, none offer increased income generating opportunities or employment that would increase cash flows within local communities.

However, Emerton (1999:9) observes that Community integration approaches to wildlife conservation usually have a strong economic rationale. They are typically based on premises that if local people participate in wildlife management and socio-economically benefit from this participation then a win-win situation will arise whereby wildlife will be conserved at the same time community welfare will improve (Emerton, 1999:9).

There are several ways in which this sharing of benefits can occur, this include; Revenue sharing with local communities of any proceeds from wildlife related activities such as tourism, safari hunting, and commercial culling. Employment and income generation through wildlife and park services as well as creation of markets for local handicrafts and finally, investments in social amenities required for rural development (Swanson and Barbier, 1992:105).

As much as it is important to put in place concrete socio-economic PA/community strategies, it must be realised that PA resources also play an

important role in day-to-day needs of the local communities. In this regard PA management authorities should consider harvesting activities of at least non-animal products like wood, medicine and wild fruits. Structured harvesting programs may need to be developed and implemented by both the local communities and management (Shackleton, 1996:36). However, it is important to ensure that society use the designated resources without impacting negatively on its regenerative capacity (Harremoes, 1996:391).

Communities however stand to benefit immensely if PA resources are linked to well organised tourism activities that can supply local communities with socio-economic benefits.

The role of tourism in local communities socio-economic and cultural development

Returns from wildlife accrue mainly to government, provincial authorities and few tourist entrepreneurs in established urban areas and capital cities (Kariro and Juma, 1991:175). In the most politicised, often more densely populated rural communities, demands have been on conservation agencies to move a step further by providing either a share of the profits generated from tourism or direct access of PA resources by local communities. More often the underlying call is for employment and consistent income provision and not for a few handouts of meat, thatch or wood. The demand for a share in profits is compounded by the demand for the return of locally generated income from the central treasury, which is often out of hand of lower level conservation agencies. Ensuring that such income is allocated to the area in which it was generated requires considerable degree of decentralization and regional economic autonomy (Cesario, 1996:25).

The overall objective of attaining community welfare should be seen to translate into improved quality of life and overall community growth (Knight et al., 1997:90). However, such growth should not occur at all costs, instead, tourism should be in harmony with culture and environment. Tourism should also provide opportunities for comprehensive local involvement if the benefits are to be distributed equitably and not be concentrated in the hands of a few. These can contribute to the multiplier effects that can help achieve stability and balance spatial development with a number of leading sectors as well as strong linkages among them, rather than a single-minded concentration in tourism. Incomes from tourism need to filter down to local people whose land and interests are affected in one way or the other (Swanson and Barbier, 1992:136). This is necessary in order to create adequate incentives for local populations to help in conserving PA resources. Whilst significant financial capital is generated by tourism, most of it is normally spent on transportation, lodging, food, and supplies with little accruing to local economies in and around tourist related conservation sites. However indirect benefits may take the form of wages from employment, compensation fees and development of local social services.

In spite of the numerous advantages of tourism and eco-tourism, concern for the negative aspects must be considered in the interest of communities (Francis and Talbot, 1993:78);

- Conservation of species usually depends on the commitment of all residents whereas cash benefits from tourism will only be received by a minority.
- Even if benefits are widely received, the link between incomes

earned from tourism and conservation of natural resources base might not be evident locally hence incentive may not be felt.

- It is not clear that tourism can generate enough money for wildlife to pay its way except in few prime areas. In many national parks tourism cannot fund park management. Parks come under increasing pressure from governments to be self-financing, which implies that they will be less willing to share meagre financial resources with the surrounding residents

Relieving consumptive pressure from PAs

Socio-economic and cultural over dependence on PA resources has been one of the main causes of PA resource overexploitation. In this regard, efforts should be made to reduce consumptive pressure from PA resources.

There are a number of alternatives for reducing demand on the resources in PAs (Dixon and Sherman, 1990:66). When motivation behind use is to supplement income, any alternatives that increase income will reduce the demand for the resource in question. Rural development schemes that raise income whether they involve protected areas or not will reduce the need of nearby residents to encroach on a PA. Another means of reducing demand is to develop supplies of another resource as a substitute. If the resource is used for food, developing alternative crops that can be grown intensively in the buffer zones or outside the reserve will reduce demand (Gibson, 1999:120). If the endangered resource is poached for commercial use, actions can be directed to regulate sale of the product in the market place. If penalties or level of enforcement are increased, both poachers and dealers will be less apt to participate in the sale of the resource, which will reduce the demand for the

resource thus limiting poaching. However, any measures must be reached through consensus with the local communities, this will not only help gain their support but avoid conflictual situations as well. If conflicts do occur however, a multi stakeholder approach should be engaged in the arising conflict resolution efforts (Dickson and Sherman, 1990:67).

Socio-economic conflict resolution in PAs

Local people should be included in the planning process before a protected area is established. Although they rarely have veto power, their voices may be essential in minimizing future conflicts. Various accommodations can also be made by authorities to meet their needs, for instance where a limited amount of certain use would not threaten the protected area, an agreement can be arranged detailing allowable use (Dixon and Sherman, 1990:198). Secondly wherever possible nearby residents should receive preference for jobs generated within and by the park. When tourist development is undertaken, local residents should be hired to the greatest extent possible. If necessary, training should be provided to increase opportunities for local residents to fill available positions. It may be also be necessary to establish buffer zones around the protected area where "illegal" uses are permitted even if only informally (Dickson and Sherman, 1990:201).

Participation and empowerment of local people in PA management.

Rather than outside program managers and policy makers unilaterally defining conservation programs, stakeholders should be empowered, through a process of group learning and consensus building, to create and manage their own resources. Shifts in the locus of resource-related decision making have

considerable implications for local resource management (Anderson and Grove, 1997:194). Local communities should therefore be encouraged to develop this participatory process on their own, or if required, with the help of outsiders who act as catalysts to the process. This is because the degree of participation by different local groups in project decision making and implementation is a key factor in empowering local groups to defend their own interest and to develop and adapt institutions required to sustain natural resource management strategies over the long term (Brown, 1998:33).

Local people's participation in the protection of wildlife and natural areas should be provided for by law rather than by an administrative policy (Fuggle and Rabie, 1992:691). This should include among others determination of reserve boundaries, preparation of management plans and the appropriation of economic benefits derived from a given resource (Fuggle and Rabie, 1992:691).

Harremoes (1996:391) observes that another initiative in an effort to improve community conservation and participation is the development of participatory land and resource planning. This includes creation of land use maps by the community for specific land uses and development of resource management systems. This reduces many of the shortcomings of strictly technical approach to land and resource planning such as lack of participation and the focus on land capability to the detriment of other socio-economic and social cultural factors. It also encourages the utilization of indigenous knowledge where appropriate, and places decision making in the hands of groups most affected by land and resource changes.

Knight et al. (1997:93) argues that it is critical to develop agreed management systems between the groups concerning resources of mutual importance. However if the government implements such planning processes without adequate consultation on the ground, they will prove ineffective and damaging. Too often external planners consider existing land use systems as inappropriate or destructive and attempt to develop technical zone unit classifications based on species abundance and adaptability. This proves impractical and fails to take account of critical socio-ecological interactions. Moreover, it reduces the opportunity for local communities to influence activities that affect them and have control over their own land and resources. Indeed participatory land use planning for these territorial villages offers an alternative. The approach attempts to re-establish the capacity of local communities to manage the resources they depend upon by involving them in the discussions, committee developments, boundary demarcation and development and implementation of land and resource plans.

Wells (1992:241) notes that projects conceived and implemented internally by local communities in the developing world (internally motivated projects; IMPs) inherently meet local needs. They often address issues of livelihood, security and income generation hence they are more sustainable than externally motivated projects that are often narrowly focused on biological conservation (Wells, 1992:238).

Efforts to realise this outcomes should result from a blend of "modern" conservation strategies with indigenous knowledge considered beneficial to the pursuit of sustainable conservation initiatives.

Reviving indigenous knowledge for sustainable PA management

Contemporary resource policy makers tend to pay little attention to what traditional cultures have had to offer. They prefer to base management practices on strategies and techniques, which have worked in other settings (particularly western world) but may not be necessarily suited for local conditions due to contrasting socio-ecological settings (Kariro and Juma, 1991:35). It should however be noted that within African rural setting, ecological conditions, social institutions and available technologies are comparable to what prevailed in those regions 100years ago, when looking for positive indigenous knowledge to be applied in modern PA management, this forms a solid knowledge base not only for comparative purposes but also as a basis for knowledge to learn from (Kariro and Juma, 1991:35).

Throughout the colonial period, colonial administrators branded traditional practices and technologies "primitive". Little or no attempt was made to understand, modernize or adopt traditional strategies to foreign strategies of resource management. However, Western and Pearl, (1989:156) notes that pre-colonial society was geared towards conservation objectives as well as living in harmony with the environment. Traditional resource management also arises from minimal degree of specialisation hence its acquisition is open to a large segment of a population as opposed to "modern" conservation knowledge. Western and Pearl (1989:156) further observe that traditional knowledge can be produced at a much lower cost through informal experimentation by methods involving accumulation of experience over a long time.

Conservation should make use of traditional cultural approaches to species and habitat conservation and try to rekindle these where possible. Cultural diversity often parallels ecological diversity and the local traditional adaptations are often most environmentally sound (Western and Pearl, 1989:156). In the past, long-term cultural stability has shown that local people are fully able and competent to enforce regulation for the benefit of their community, it therefore seems appropriate that the people who are most directly dependent on nature should resume custodianship with some form of partnership with outside bodies (Fuggle and Rabie, 1992:273).

For any conservation or development proposal to succeed, it needs popular support, which means a requirement for consultation with, and participation by recognized representative of the people at every community level. Because of their close contact with, and cultural dependence on their natural environment, local people have over many years developed a rich conservation wisdom and understanding of natural processes. They should therefore be involved in the control and planning of the use of the given resources. Harmonizing of local needs and local knowledge with conservation can therefore be perceived as sound environmental and socio-economic planning (Cesario, 1996:25).

Cultural traditions can be used to strengthen local organizations with an enhanced sense of identity (Western and Pearl, 1994:335). Teamwork, sacrifice, communication, solidarity and persistence are all elements of successful development efforts, and all those elements can be enhanced through the application of culture-based principles.

Western and Pearl (1994:334) advocates for five principles; Firstly, there is need to deepen the understanding and knowledge of both the actual and potential relationship between cultural traditions philosophies, worldviews and community based conservation. Secondly, there is need to learn to be more effective in enabling traditional peoples and others to draw upon and develop cultural traditions that are particularly useful in promoting a conservation ethic and plan of action. Thirdly, there is need to support dissemination of information and experience among the local people and between scientists and conservation professionals. Fourthly, there is need to support and promote alliance and other forms of co-operation between representative organizations. Fifth, there is need to develop culture based conservation strategies designed particularly with the youth in mind and finally, there is need to support efforts to reflect upon and evaluate activities that link cultural traditions and community based conservation, including exchange visits workshops, conferences and research (Western and Pearl, 1994:335).

The ability of PAs to meet both conservation and socio-economic needs depends on sound financial support, which may be monetary or non-monetary. However, the PAs prime objective should be to ensure their own financial viability and sustainability to avoid over-reliance on external funding sources.

Sources of funding in collaborative PA management

There are several sources of funding for PA management in Africa. However, the most notable ones are;

National budgets

Since protected areas provide a number of benefits to the nation as a whole as well as nearby residents, it is only reasonable to expect the national government to contribute to the protected area system. Though funds are usually scarce, the funds allocated should be adequate to develop a central planning and administrative agency of sufficient size and capacity to oversee the protected area system along with enough funds to provide at least nominal presence at each protected area. This will provide a primary funding base to be supplemented by other protected area income generating activities. National level and grassroot funding can come from general tax revenues or earmarked taxes from specific sectors like the hospitality, or the PA access fees (Dixon and Sherman, 1990:80).

Revenues from PA activities

User fees, entry fees, concession charge, accommodation charges, tour guide services, stores and restaurants can form part of a good revenue base. Others may include royalties from books, photos and films and products from biological resources originating from the reserves. Fees for permits to hunt, fish or collect materials from the area and fines from those caught violating regulations are yet other sources of funds (Dixon and Sharman, 1990:80).

Private sector funding

Funding can be solicited from a variety of sources in the private sector including individuals, co-operatives and conservation organisations. Such funds may be given directly to PA management, conservation NGOs or national agencies responsible for PAs.

Other forms of assistance

Assistance is not only limited to money. Establishing information and monitoring systems, provision of equipment and other forms of technical expertise can make important contributions from donors. These can help improve the efficacy of protection efforts (Dixon and Sharman, 1990:198).

However dangers of foreign funding are now known (Western and Pearl, 1994:502) to include the perpetuation of dependency relationships in which communities do everything to attract donor funding for other purposes other than conservation. Other flaws include the initiation of unsustainable capital development projects and localized bureaucratic structures, community tactical acceptances of objectives that are in-consistent with their own perspectives and the introduction of power within the community. In this regard care should be taken to avoid capital development of which community has little control or interest in maintaining. Donor assistance may cause a rapid build-up of unsustainable bureaucratic and managerial overheads and divert benefits away from the community in the same way as some district councils and local authorities do (Western and Wright, 1994:422). In this regard, indirect investment on socio-economic infrastructure like roads, schools and water is considered more viable.

Given the diversity and difference in PA settings and communities, it is difficult to prescribe precise management measures. However, as experienced in other conservation settings, embracing the following recommended approaches may enhance the success of any PA.

Recommended approaches

Basing on experience from other places overall management process should lead to an adaptive and flexible management strategy; that is, there should be periodic evaluations of how well the strategy is achieving a holistic community conservation effort. Periodically, goals need to be changed and focus shifted as per arising issues (Meffe and Carrol, 1996:337). A common example of such issues is compensation. This should be consensual based on a comprehensive equal multi-stakeholder negotiation.

Beyond compensation for land or any wildlife damage, conservation approaches must respond to the changing needs of the society. Protected areas must therefore not be practiced as a static science that seeks to preserve, but must be dynamic if they have to survive. A more practical strategy will be for wildlife protection to accommodate the involvement of local people and other land-uses on the boundaries of the protected areas (Kariro and Juma, 1999:172). In planning for future rural development, there is need to develop, new methodologies that fully appreciate the local communities understanding of their environment. Participatory rural appraisal (PRA) represents a significant step forward and has much potential for implementation at local level (Binns, 1997:13). PRA should help to determine the aspirations and needs of the rural individuals, households and communities. On the basis of this information it should be possible to introduce development projects that

are based on locally perceived needs, likely to reduce vulnerability and increase local communities security and resilience and guarantee socio-economic and resource sustainability. To achieve this, PA management strategies should be adaptive and flexible (Meffe and Carrol, 1996:278).

Resource use regulation plays an important role in the success or failure of any conservation strategy, it is therefore important that any form of regulation be tailored to meet the needs of local communities and conservation. Perhaps the best form of regulation is to provide guidance and allow a community to regulate the use of resources on its own. This option is best suited to situations where a single, cohesive community can be given sole access to the resources even within protected area. If the community members are willing to act in the best of their own interest, they can be given control of the resources to ensure that its use and quality level stays at an acceptable level. One advantage of this option is that the need for enforcement is greatly reduced, the community with some outside help can police itself and simultaneously prevent outsiders from using the resource (Dixon and Sherman, 1990:67).

If limited amount of use is not detrimental to the protected resources a permit system can be established to regulate the number of users for example collection of herbs and spices. However decision need to be made on who gets a permit. Penalties must also be established for users who do not hold permits. The cost of enforcing the permit system may be considerable. Though penalties are considerable enforcement tools (Dixon and Sherman, 1990:69), they are the least desirable form of regulation. They create hostility between local residents and guards that can lead to violent confrontations.

Eliminating the need to poach protected area resources in order to survive is far more desirable.

Programs should aim at achieving community development; revolving funds are a good way of helping local residents improve their quality of lives. This approach involves establishing an initial capital fund that is loaned to villagers to invest in income generating activities that are currently restricted due to a lack of available funds. The loans may be made at a low interest rate and be repaid into a loan fund.

Another potential source of funds is to allocate a percentage of revenues generated by protected area to development projects. Since it is local residents who often end up losing the most when protected areas are established, returning some of the fees collected is both equitable and a means of getting residents to take an active interest in the protection of protected area resources (Dixon and Sherman, 1990:79).

Lessons learnt from past conservation initiatives in Africa indicate that conservation programmes implemented solely by government for the presumed benefit of its people will have limited success. Instead conservation for the people and by the people with supervisory role delegated to the government could foster a more co-operative relationship between government and the residents living within the resources (Primack, 1993:336). This might reduce the cost of law enforcement and increase revenue available to other aspects of wildlife management, which could help support the needs of conservation as well as those of the immediate community. Such an

approach would have the added advantage of restoring to the local residents a greater sense of local ownership and responsibility for the resources.

Without doubt, PAs financial controls have stepped out of local communities authority. Strategies based on providing direct financial compensation to local communities to recompense for the exclusion from protected areas are rarely sustainable. Governments rarely have the fiscal resources to cover both recurrent costs for both protected area management and long-term support to the communities (Brown, 1998:33).

If looking for a win-win situation, a given strategy must start by acknowledging that people already using the resource even if without legal sanction are part of the solution and not the problem. Strengthening the incentive for existing resource users to sustainably manage key resources offers the possibility of lowering the financial demand on the government to finance protected area management by reducing government's policing role.

Brown (1998:33) suggests that a given strategy should aim at identifying key resources found in the protected areas that are already important within local livelihoods and seek to increase returns to the primary users of these resources on sustainable basis. Implementing this approach requires multi-stakeholder partnership, negotiation as well as encouragement of sustainable usage by identified resource users.

Implementation of sustainable management of protected areas require integrating information on the ecological characteristics of the given resources and economics of sustainable use with the desires of local communities.

Communities and extension workers are often unclear about the best management techniques with which to ensure ecological sustainability. For this reason, strong links must be developed between scientists, extension workers and community representatives if true system of sustainable use is to be realized. Local solutions that promote participatory management of natural resources with focus on socio-economic and cultural development are very crucial.

It is also necessary to show that the contribution of protected areas to society is relevant and important. New strategies that will help link local communities to their neighbouring protected areas are necessary if the benefits are to be shared by society and if the local people are to provide support and be brought into protected area management process.

Determining success in conservation initiatives

In order to determine whether the project is a success, fundamental environmental indicators should be monitored, for example whether wildlife population are increasing, decreasing or static (Western and Wright, 1994:188). Change over time in local perceptions of wildlife resources are also important in order to detect whether they are becoming more or less positive towards wildlife. Efficacy of structural arrangements for collective decision-making and conditions for provision of individual and group incentives are also of crucial importance. Determination of these parameters requires constant monitoring and research.

Constraints to local communities integration into PA management

Despite various strengths of integrative protected area management as shown in the case studies below, there are a number of constraints and implications worth noting:

Institutional concerns

Many analysts point out that while some groups and institutions have made attempts to adopt integrative protected area management through Participatory Rural Appraisal (PRA), most of them are only done partially (Kapoor, 2001:273). For instance, PRA may be used to evaluate a program at the beginning but no provisions are given that it will be carried out in the entire management framework. Firstly, Institutions view participatory approaches to entail heavy commitment of resources (time, human, institutional and financial). Secondly, transition towards full integration requires nothing less than a change of organization culture, involving a movement towards broader, more flexible and longer-term goals.

Quality of participation and the question of community

Most conservation programs assume that local communities are monolithic, thereby ignoring the fact that communities tend to have multiple and sometimes divided and conflicting interests and actors. Whether based on outside influence or not, there are several "micro-power" process at play within participatory space at the community level. Some participants may be more influential than others, because they have well-supported and persuasive arguments. Whether intended or un-intended the end result may thus be imposed on the community in the name of consensus (Kapoor, 2001:274). One way out of this may be for PA management to encourage multi-

consensual participatory strategies that are based on new institutional forms that are coordinated, plural and flexible hence capturing the needs of a diverse audience (Agrawal and Gibson, 1999:633).

African case studies on the effect of local communities on PA management

Case studies 1

M'passa Biosphere Reserve, Gabon.

The M'passa Biosphere Reserve was created in the early1970's as an example of rich rainforest habitat conservation in north-eastern Gabon. Unfortunately, those involved in the siting of the reserve neglected to consult the local people. Nearby villagers woke up one day to find their former hunting and grazing grounds out of bounds as a large area close to several villages had been enclosed into the biosphere reserve. The communities surrounding the M'passa Biosphere Reserve had relied on hunting, fishing and livestock for survival. They had also applied indigenous knowledge to maintain the resources. Inevitably, as a result of the enclosure, the villagers developed an intense bitterness towards the reserve. From the perspective of the local people, every aspect of the reserve was negative. Strange foreign scientists and tourists "roamed" the forest in which residents had traditionally hunted, but from which they were now banned by the government. Residents reacted by sophisticating their poaching techniques and even commercialising the biospheres resources. By 1987, much of the wildlife had been shot by the surrounding communities and cultivators were slowly encroaching the reserve. The reserve failed because people were not incorporated in the

earlier planning and later management of the biosphere. *(Adapted from Sustainable Development in African Game Parks, Barnes, R. 1994:507)*

Case study 2

Virunga National Park, Rwanda/Democratic Republic of Congo

The Virunga volcanoes straddle frontiers of Rwanda and the Democratic Republic of Congo (DRC). The Rwandan side is protected by Parc Nationale des Virunga (PNV) and covers about 200km^2. The Virunga volcanoes became famous as the realm of mountain gorilla. Between 1960 and 1973 gorilla numbers dropped from 450 to 270 as a result of deforestation to pave way for cultivation and grazing. The first efforts on the Rwanda side to protect gorilla were based in the notion that the park had to be defended against the local communities surrounding the area. Protection was confrontational and poaching was rife.

In the mid 70s the Rwandese government realised that the conservation strategy adopted had failed and opted for other means to protect the mountain gorillas. In this regard, the PNV in conjunction with a consortium of conservation organisations came up with the Mountain Gorilla Project (MGP) in 1979.

The MGP had three main components. First, was to improve park protection by hiring and equipping guards from the local community. Second, was to actively involve local people in ecotourism to improve the parks financial viability as well as benefits to the surrounding communities. Third, was to increase awareness on the importance of the MPG initiative, which was done

through a mobile unit that toured villages and schools around the park giving lectures and showing films.

The MGP achieved a spectacular success. Poaching declined and gorillas increased in number to over 300 in 1984. Attitudes of local people towards the park on the Rwandan side changed as they saw prosperity that tourism had brought them, the district and the nation. Revenue from tourism rose by about US Dollars 230,000 between 1979 and 1983. In 1984, tourism attracted by gorillas became Rwanda's-second largest foreign exchange earner.

Meanwhile, on the DRC side, government employed guards, who were poorly equipped, brutal and de-motivated. Consequently, poaching as well as local communities hostility towards the mountain gorillas increased resulting to a sharp decline in gorilla numbers. *(Adapted from Sustainable Development in African Game Parks, Barnes, R. 1994:504)*

Case study 3

Tchuma Tchato Community Conservation Initiative, Mozambique

The Tchuma Tchato initiative grew from the efforts of National Directorate of Forestry and Wildlife (DNFFB) staff based at Gorongosa Provincial Game Reserve, Manica Province in western Mozambique. Operating from provincial headquaters, the staff sought to find solution for continued confrontational, and often violent conflicts between the Bawa community and the reserve guards. In 1993, with minimal funds from the treasury approved by three government ministers, the provincial DNFFB staff negotiated with local population for their involvement in the initiative. They started by setting informal community councils elected democratically by community members.

The council was also directly involved in controlling illegal hunting as they were given the mandate to "hire" and "fire" guards from the local community basing on commitment to duty. The council was also involved budgeting and disbursement of revenue earned from the Gongola Game Reserve. By 1995, almost illegal hunting had ceased and wildlife numbers increased. Tourists' security improved hence attracting more tourists. In 1996 community earned US Dollars 15,000 from trophy fees. Part of the revenue was dedicated to community water project with the remaining being directly distributed to households by council members and DNFFB workers. More important, they recovered a sense of local control over the game reserve's resources as well as their future as reflected in the name of the initiative "Tchuma Tchato" meaning "our wealth" in the local language. (*Adapted from African Wildlife and Livelihoods, Hulme, D and Murphree, M. 2001:83*)

SUMMARY

This chapter presents the literature surrounding this study. The chapter started by highlighting the unfolding transformation of PA management system from colonial era to the present. The chapter then proceeded to highlight the various views on local peoples' perception on PAs, natural resource tenure, role of decentralisation in decision-making and role of tourism in socio-economic development. It is concluded by an indication of alternative approaches to sustainable PA management.

CHAPTER III

RESEARCH METHODOLGY

INTRODUCTION

The previous two chapters presented the research problem and the literature surrounding the issues under investigation, respectively. This chapter now presents the research process and the methods used in the study. It explains the research design, describes the research instruments, data collection process and concludes by enumerating the constraints encountered during study.

Research design

The entire research is qualitative, mainly based on non-quantitative descriptive survey made in the field. This type of research design entails direct observation and relatively unstructured interviewing in natural field settings (Bollen and Marshal, 1973:276). Where possible genuine social interactions occur between participant observers and the subjects. Pertinent documents and artifacts were also collected. Typically such observational data collection is less structured than quantitative research; being flexible, spontaneous and open-ended.

Reasons for choice of the study area

Whereas two game reserves in the wider GFRC (SKR and AVKR) are surrounded by commercial farms, the DDGR is surrounded by localised villages as well as a few farms owned by black farmers. This provides the parameters under investigation (interaction between reserves and people).

Nature of data collected

The main aim of this study was to evaluate the socio-economic and cultural relation between the local communities and the DDGR. In this regard, data was collected on local communities perception of the DDGR. Opinions were also sought on the PA resource use as well as issues of community based PA resource tenure. Local communities' feelings on the role of the DDGR on socio-economic empowerment and the impact of the current conservation policy on the above were also sought. Finally, information on the role of decentralization of decision making as well as role of CBOs on the PA/community relation was also gathered.

Sources of data

Both primary and secondary data was collected in order to achieve the objectives stated earlier.

Primary data

This was "hard data" obtained from the field by way of survey through questionnaire administration, interviews, a focused group discussion with the local people, as well as observation. Interviews were also carried out with two key informants namely the chairman of the defunct Inxuba Conservation and Economic Forum (ICEF) and a social development researcher at the Institute of Social and Economic Research (ISER) who has a wealth of research experience in the socio-economic and conservation dynamics in the study area.

Secondary data

This was any form of information or data obtained from existing documented evidence on PA management and DDGR in particular. These sources included among others, official reports, policy documents, government publications, research papers, literature texts, newspapers and the Internet. In addition, a base map used to design the study area's map using "Arc view" GIS was acquired.

Instruments of data collection

The study combined various social science data collection techniques, which included inter-alia direct field observation, use of questionnaires, personal interviews as well as a comprehensive review of existing literature. Bollen and Marshall (1973:40) argue that decisions to combine several methods because of strengths and shortcomings can compensate for each other.

Interviews

Mouly (1963:264) defines an interview as a conversation carried out with the purpose of obtaining certain information by means of spoken word. Interviews are an efficient means of information collection especially for respondents that are either illiterate or semi-literate.

Unstructured interviews

In this method of data collection, an interview guide was used to serves as an indicator on areas that should were covered. The interviewer is not restricted to a list of specific questions and therefore free to repeat and ask additional questions that may steer the conversation towards the area of focus (Fox,

1969:546). Some of the advantages of using this method of data collection are: -

-It is flexible thus permitting the investigator to pursue leads that might appear fruitful.

-It allows for elaboration of points, which the respondent has not made clear or partially avoids.

-It helps clarify questions which the respondents has apparently misunderstood.

-The interviewer is in a position to establish rapport with the respondents and therefore is able to encourage him to give honest and complete response.

-It permits a conversation with persons who are essentially illiterate or who are reluctant to put their views in writing (Fox,1969:540; Mouly, 1963:266).

However unstructured interviews have their own short comings, for instance the outcome of the results may be affected by the researcher's influence through his/her decision on what to ask and who to ask unstructured interviews are also liable to unnatural behavior of the respondents resulting from an attempt to create favorable impression in the eyes of the interviewer. Finally conducting an unstructured interview is relatively costly compared to other means of data collection (Mouly, 1963:267).

Five key respondents were interviewed using this method; the first respondent was Mr. H. Timmerman, a social, policy and development researcher attached to the Institute of Social and Economic Research (ISER), Rhodes University. He was chosen for an interview due to his wealth of knowledge and research

experience in the location of the study. Another key respondent was Mr. L. Zukile, the former ICEF chairman. Two other community forum representatives from Shehegu and Ngcabasa were also interviewed. The last respondent was the DDGR manager, Mr. M. Birch.

Structured interviews

Formal interviews with the aid of structured and semi-structured questionnaires were used for collection of primary data. This type of questionnaires contains definite, concrete and pre-formulated questions for the purpose of eliciting detailed responses. The form of questions may either be closed (categorical) or open (inviting free response). The important thing is that the questions are stated in advance, not constructed during the interview (Young, 1956:177). According to Bollen and Marshal (1973:36) these instruments of data collection may provide information about what a person knows, expects, feels or wants, intends or does. However some of the shortcomings of such interviews are that people may not want to be frank. Structured interviews may also be influenced by the biases of the researcher; how he asks questions or structure interviews. For this study questionnaires were also used as a guide for structured interviews in cases where respondents could neither read nor write.

Questionnaires

Notwithstanding the fact that respondents sometimes fail to return questionnaires for various reasons, or the possibility of questions being misinterpreted and the results therefore affected, the researcher decided to use questionnaires as a method for data collection for its advantages such as the following:

-They permit a wide coverage at minimum expense both financially and logistically.

-They can reach persons who are difficult to contact particularly when they are mailed.

- Questionnaires can be distributed widely leading to greater validity of the results by allowing the selection of a larger and more representative sample.

- Since it does not call for signature or other means of identification, the respondents may be encouraged to give honest response.

-It allows greater uniformity in the manner in which the questions are posed, which in turn ensures greater comparability of answers (Tuckman, 1978:107-123).

Perhaps the biggest advantage of using questionnaires as a tool for data collection is that, a substantial amount of information from a large number of respondents can be collected and analyzed relatively easily (Tuckman, 1978:123).

Questionnaire structure

The questionnaire for the study was divided into three sections labeled A, B, and C.

Section A

This section of the questionnaire was aimed at gathering background information on the population of the study area with focus on sex ratios and

distribution, educational level, household size, employment status and sources of income.

Section B

This section was aimed at gathering data on local people's perception regarding the policies on the DDGR, protected area resource sharing, issues of tenure, empowerment, decentralization of decision making as well as the role of CBOs in collaborative natural resource management. Both the sections mentioned above were directed to the local communities. The above sections were also used as a guide for structured interviews for respondents who could neither read nor write.

Section C

Section C of the questionnaire was directed to the DDGR manager. It was aimed at getting the management's opinion and making a comparison with the information gathered in section B above. This section was also aimed at establishing the extent of collaborative PA resource management between the DDGR and surrounding communities as well as local community involvement strategies adopted by the DDGR.

Analysis of available documents

Analysis of available documents is rarely used as a sole method of field research, but it is almost always employed to supplement data from other sources (Bollen and Marshall, 1973:40). Documents like the White Paper on Biodiversity, the Green Paper on Biodiversity, the Great Fish River Management Plan and the Mid-Fish River Zonal Study were also consulted.

Observation

Non-participant observation as a means of survey was used to augment other data collection tools already mentioned. Bollens and Marshal (1973:35) observe that observation forms a basic method in social research. It involves watching what is going on, who is doing what to whom, where, when and how? Researchers analyze occurrences they observe to find patterns and to link them with theories so that more general conclusion can be drawn about the issues being investigated. However, inability to reveal why the behaviour occurs or what people's attitude is about it, is one of the major shortcomings of this method of data collection. Observation is also limited to the researcher's perceptions. Just as participants' reports of what happens will differ, researchers perceptions vary as well (Bollen and Marshal 1973:35).

Focused group discussion

Some of the data for this study was acquired by way of a focused group discussion comprising of six community members at Tweni village who were found sitting together in a house. The researcher deemed this method of data collection useful as it helped acquire information from a diverse range of people within a short time.

Sampling and sample design

Five villages namely Sheshegu, Nomtayi, Ncabasa, Tweni and Gwabeni were selected and surveyed from the available nine villages. Sheshegu and Ncabasa were chosen to represent neighbouring but not adjacent villages to the game reserve. Other villages under this category include Qamnyana, Glenmore and Ndwayana. Nomtayi and Gwabeni villages were chosen to represent the views of respondents who were relocated from the game reserve

and live just outside the reserve fence, the other village considered under this category is Ripplemead. Tweni village was selected for respondents who still stay in the game reserve and are in the process of being relocated (Table 1).

Table 1: Description of village categories vis-à-vis surveyed villages

Description	Category	Surveyed Villages
Neighboring but not adjacent to DDGR	- Sheshegu Ncabasa Glenmore Qamnyana Ndwayana	Sheshegu Ncabasa
Adjacent to the DDGR	Nomtayi Gwabeni Ripplemead	Nomtayi Gwabeni
Within the DDGR	Tweni	Tweni

To offer everybody an equal chance of being interviewed, respondents were identified by way of purposive and systematic random sampling methods. The closest household to the village "drop off point" was identified and selected as the first sample. There after systematic sampling was applied. In case of unavailability of would-be household respondents, the subsequent household representative was interviewed. The interview targeted any adult (over 18 years) in the household. However, preference was given to the oldest available

member of the household. In addition to the above, purposive sampling was used to identify key respondents namely two community forum members from Sheshegu and Ncabasa, community forum chairman Mr. Zukile, a social development researcher from ISER (Rhodes University) and the DDGR manager. A total of 80 community members from the five villages responded to the questionnaires, structured interviews and unstructured interviews. Due to limitation of resources (time and finance) only 8.7 of the acceptable 10% village respondents were interviewed, however, the 1.3% shortfall was compensated for by the data acquired from the key respondents.

As indicated earlier, due to resource limitations (time and finances), only 42 (5.2%) of respondents from the expansive 810 Ncabasa village households were interviewed. In the remaining villages, a range of 41% to 46% of each of the entire village households was targeted. Out of the 923 households the ultimate sample target was 80 (100%) in all the five villages (Table 2).

Table 2: Sampling details

Village	No. of House Holds	Number of sub-group	Sample Percentage	Average Population per House Hold	Estimated Total Population
Tweni	19	8	42	7	133
Gwabeni	44	18	41	8	352
Nomtayi	13	6	46	8	104
Ncabasa	810	42	5.2	7	5670
Sheshegu	37	16	43	7	259
Total	923	80			6518

Sample % =8.7
Sample household's average population =7
Source of population data: Nkonkobe Municipality, (Alice).

Data collection procedure

Data for this study was collected during the 2002 June/July holiday period. Initial contacts were made with would be respondents namely the DDGR manager, the village authorities, and other key respondents. With the research tools already mentioned earlier the researcher then proceeded to the field for data collection. Data on structured questionnaire response, interviews and observed conditions in the field were recorded instantly. At the end of each day the researcher went through all the recorded information to ensure that every data was recorded correctly.

Data presentation and analysis

Findings are presented and analyzed both qualitatively and quantitatively by the use of graphs, tables, pie charts and photographs. Although data for this study is largely qualitative, some of the data is presented and analyzed quantitatively. To this end, the data gathered from the field are to be summarized into frequencies and percentages to enable easier description and comparison of variables.

Constraints encountered during the study

The researcher was not well versed with the local language in the study area, hence an interpreter had to be used. It was sometimes difficult to find the exact words in the local language as they were used in the questionnaire and interview guides. This required additional explanations, which made the data gathering process lengthy and tedious. Some respondents also wanted to know how exactly the study will benefit them while others thought the researcher was an informer sent by the DDGR management. Attempts were however made by the researcher to clarify the purpose of the research and guarantee the informants' confidentiality. Lastly, the researcher could not access some of the important data pertinent to this study from the game reserve management particularly financial budget, funding and donations.

SUMMARY

This chapter has explained in detail the research design, the type of data collected and the tools used for data collection. It has also describes the sampling procedure and how the data will be presented. The section has also indicated the constraints experienced during the fieldwork.

CHAPTER IV

DATA PRESENTATION AND ANALYSIS

INTRODUCTION

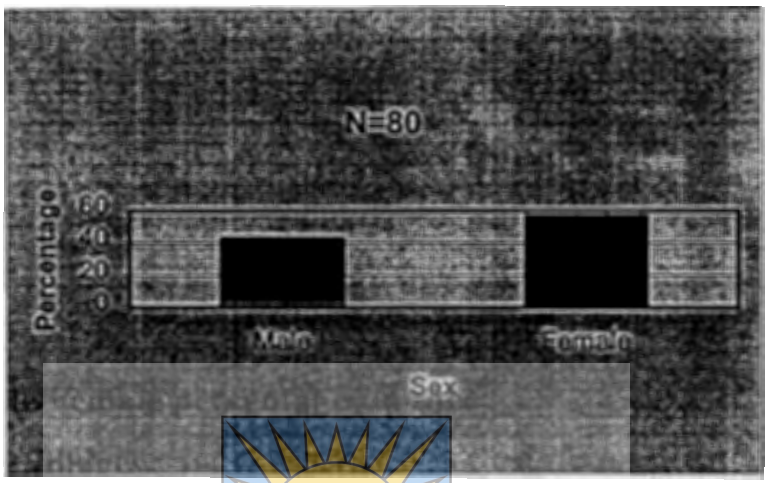
This chapter presents the data acquired in the field. It starts by giving the background information (sex of respondent, education levels, household compositions and employment status), local people's perception to wildlife protection as well as issues of natural resource use tenure. The chapter further presents data on community participation, empowerment, issues of decentralization and community based organizations. Highlights of some the contentious issues between the DDGR and the surrounding communities conclude this chapter.

Background Information

Sex of respondents

There are more females compared to males in all the five villages surveyed. As shown in figure 1, 45(56%) out of the 80 respondents interviewed were females while the remaining 35(46%) are males.

Figure 1: Male/Female percentages in the five villages

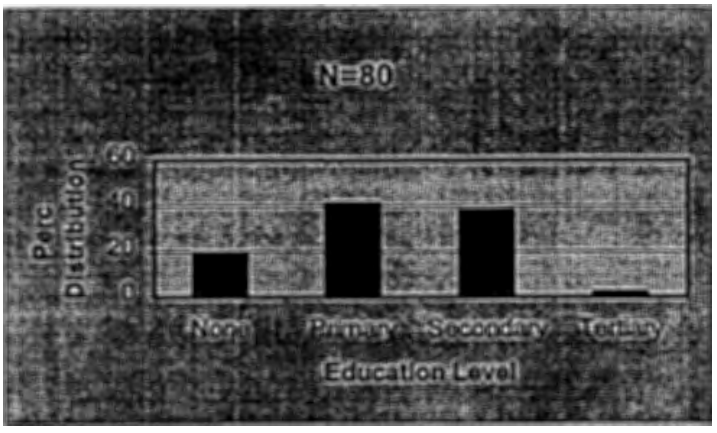


This was mainly attributed to the high emigration of male youths and male household heads to urban areas in search of formal and informal employment.

Education levels

Although most of the respondents have either primary or secondary education; hence being considered literate, a substantial number are illiterate. As reflected in figure 2, 33 (41%) predominantly older people, have primary education while 30 (38%) mostly young adults have secondary education. The later is apparent in villages that have schools like Gwabeni, Ncabasa and Sheshegu. For all the villages surveyed, 15 (19%) of the respondents are illiterate while the remaining 2 (2%) have tertiary education. Respondents from villages with lower literacy levels blamed it on unavailability of schools.

Figure 2: Literacy levels

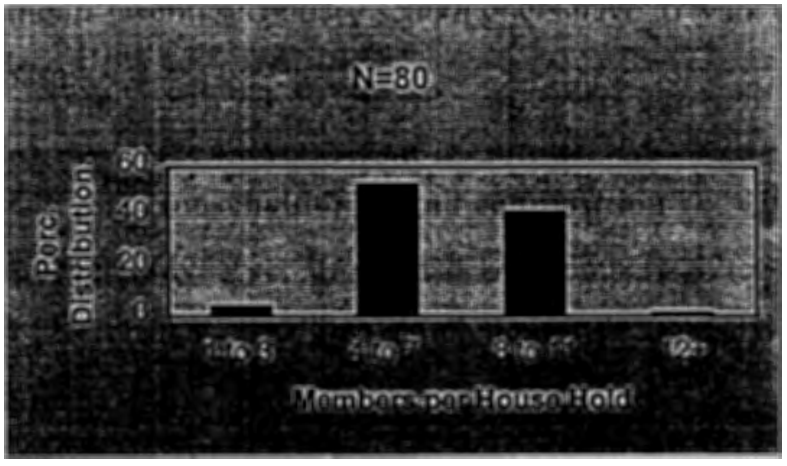


In Nomtayi for instance pupils have to walk over 7km daily to Lower Sheshegu while in Tweni, secondary school goers have to walk over 10km daily to Ncabasa.

Households size and composition

Households are generally large, 3(4 %) had 1-3 members, 42(53 %) had 4-7 members, 34(42 %) had 8-11, while the remaining 1(1 %) had over 12 members (figure 3).

Figure 3: House-holds size



As reflected earlier (in figure 1), females comprise the bulk of most households, with the remaining members of households being school going children, unemployed, game reserve-employed males or males engaged in other socio-economic activities.

Employment and other sources of income

Unemployment is generally high except in Tweni where 8(50%) of the respondents are either employed in the abattoir or surrounding citrus farms. As reflected in figure 4 below, 26(32%) of the 80 respondents are employed while 54(68%) are unemployed.

Figure 4: Unemployment/Employment levels

Most respondents, both employed and unemployed get extra income from small-scale animal husbandry while majority of the unemployed members of the households depend on pensioners' income for sustenance.

Apart from formal employment, income-generating opportunities are limited. Whereas 57(72%) said they don't have more than one source of income, 22(28%) said they get extra income from small-scale livestock farming. Other forms of land use like crop farming were virtually non-existent.

Monthly income

Low-income levels characterize the villages surrounding the DDGR. As illustrated in figure 5, the survey established that 43(54%) earn between R0-500, 30(37%) earn between R500-2000 while the remaining 7(9%) earn over R2000.

Figure 5: Monthly incomes in Rands

1 US Dollar = 10.2 Rand (July 2002)

Most of the local communities income come from citrus farms employment (like the case of Tweni and Ncabasa), from the DDGR, pensioners' earnings and monies from relatives who work in urban areas. From the survey there is an apparent higher level of income from Tweni community members who as

mentioned earlier either work in the DDGR as game ranger, abattoir workers or citrus farm workers in the adjacent farms. The lowest income levels are experienced in Nomtayi, with (4) 72% out of the six interviewed falling within the R0-500 income category. This community has the lowest literacy level as well; this makes it hard for them to secure even low cadre employment in the game reserve.

Perception to wildlife protection and creation of the DDGR

As reflected in Figure 6, there is a higher positive perception to protection of nature 66(83%) compared to 14(17%) negative perception.

Figure 6: Perception to nature protection

Whereas those who view wildlife protection positively gave reasons like wildlife right to existence as part of nature, protection from eminent extinction, their role in the beauty of nature and preservation for future generations, those who view wildlife protection negatively said they cannot hunt wildlife for meat neither can they kill menacing animals like jackals because they are protected.

As indicated in figure 7, 45(56%) of the people view creation of the DDGR positively while 35(44%) view it negatively. Whereas 10(62%) and 6(75%) of respondents from Sheshegu and Tweni view wildlife protection negatively, 20(47%) and 3(53%) of respondents from Ncabasa and Nomtayi perceived it positively. The negative response from Sheshegu is exceptionally high 10 (62%).

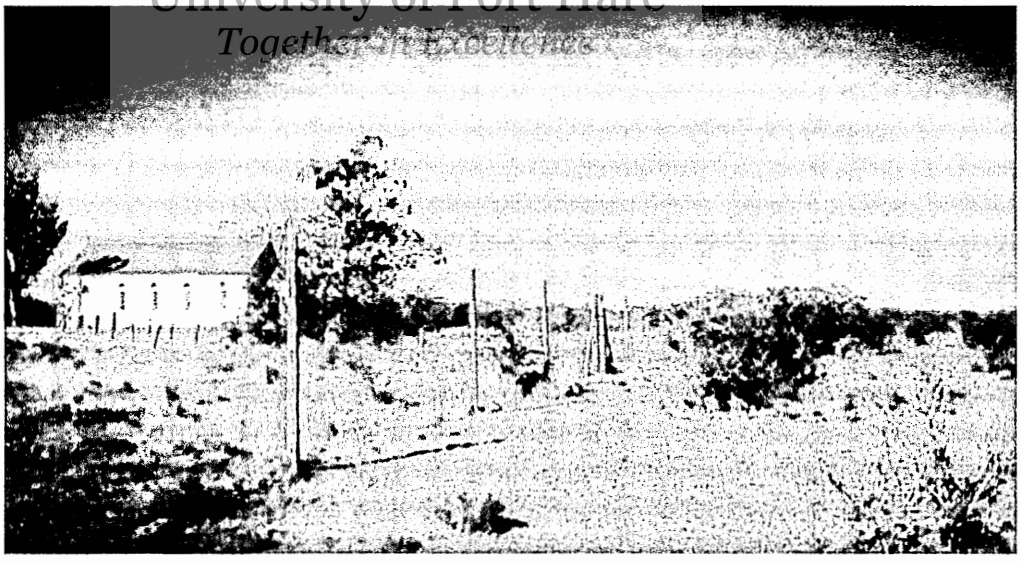
Figure 7: Perception to creation of the DDGR

According to one of the key respondents (a community forum member) the area now enclosed by the DDGR was initially under Sheshegu. Some respondents view the reserve negatively because they no longer hunt nor access the now PA resources for medicinal herbs and wild fruits. Others said they used to graze on the land occupied by the DDGR, which they cannot now. Positive perception from respondents was linked to the anticipated tourism expansion and consequent benefits that would come with it like jobs, local income generation (from local crafts merchandise and cultural dances) and social infrastructure improvement (roads, schools, and water).

cultural dances) and social infrastructure improvement (roads, schools, and water).

Affirmation that the local communities were not involved in the creation of the game reserve was high. From the survey 65(81%) said there are no community involvements while 15(19%) cited the ICEF that was established much later as an example of community involvement community involvement. Most of them complained that they were only notified when the game reserve was almost being fenced such that even key community structures like the Sam Knot church at Nomtayi (Plate 1) were already in the enclosure plan without consultation with the local communities.

Plate 1: Enclosed Sam Knot Church at Nomtayi



Although compensation was offered to those who were removed from the area occupied by the game reserve, 69(86%) respondents said the R3000 offered was inadequate. Most affected were residents of Tweni village, some of who

abandoned this compensation scheme. Residents of Nomtayi moved without any form of compensation but were allowed access to the Sam Knot Church and the water pumped by the windmill, all located in the game reserve. Residents of Gwabeni moved without any compensation and no access to the DDGR as well. Although the residents of Sheshegu and Ncabasa were not compensated (because their settlements are off the reserve), respondents felt they deserved compensation due to loss of grazing land in the areas now occupied by the game reserve.

The opinion that the DDGR could be used for other forms of land use was generally high, 43(54%) thought DDGR could be used for other "better" purpose while 37(46%) thought otherwise. Some of those who affirmed thought the game reserve could be used for community based wildlife management, others thought the reserve could be used for community livestock rangeland purposes, although it was degraded as shown in map 2 while others thought the reserve could be better used for irrigated commercial farming, particularly in areas adjoining the Keiskamma and Kat Rivers.

Plate 2: Degraded pastures in lower Sheshegu

According to the game reserve manager one of the main challenges to the PA was the mounting land claim by the surrounding communities. Although he observed that the local communities view the game reserve with 'respect', the 'respect' seemed to be on local communities respect for nature rather than the existence of the Double Drift Game Reserve.

From the survey, local communities perceive the game reserve negatively. As shown in figure 9, 58(72%) of respondents view the game reserve negatively compared to 35(44%) in figure 8 when the game reserve was created. On the other hand 45(56%) perceived the game reserve positively against the current 22(28%).

Figure 8: Perception during creation of the DGGR.

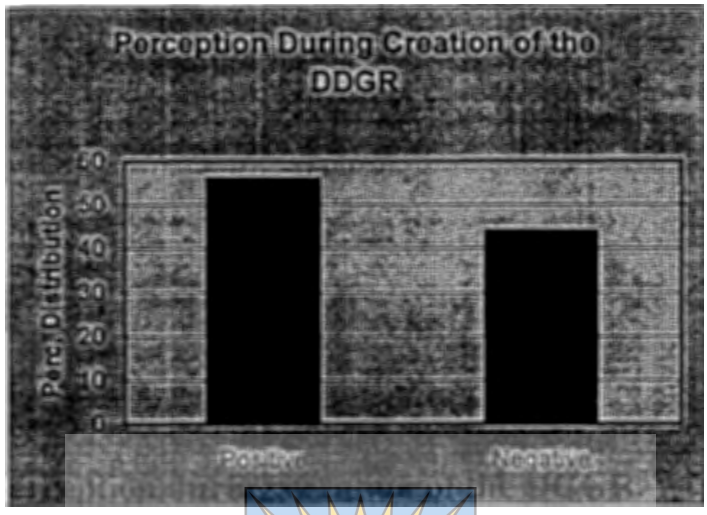
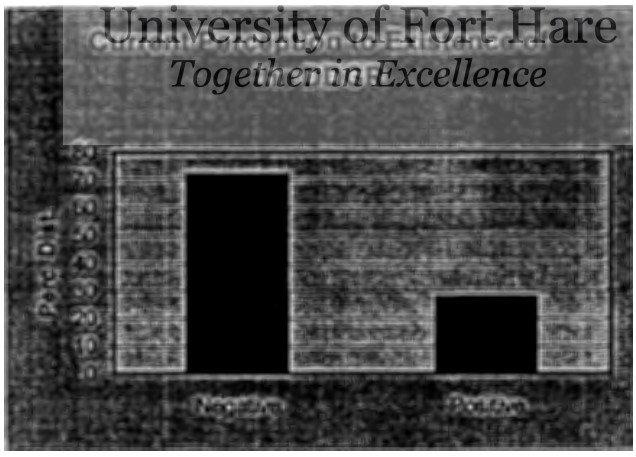


Figure 9: Current perception to existence of the DDGR



Most respondents 59(74%) feel more jobs for the community members and a vigorous involvement of the DDGR in the communities' socio-economic and cultural development would change their negative perception. Particular concerns however, seemed to differ from community to community. Respondents from Sheshegu and Ncabasa want a structured grazing program

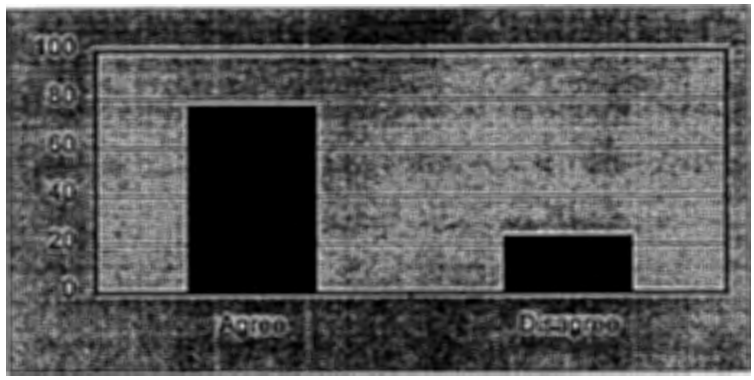
to give them access to grazing land in the game reserve. Tweni community members want the reserve boundaries to exclude their village, while Gwabeni community members want more jobs. A small number of respondents, 19(24%) felt they are better off without the DDGR as the existence of the game reserve is yet to be justified socially, economically and culturally. The remaining 2(2%) were undecided.

From the survey 26(33%) of the respondents thought there are some efforts by the DDGR management to change the negative perception of local communities towards the PA. They gave examples of the DDGR management efforts towards the establishment of community forums and employment of community members in the DDGR. From the survey 53 (66%) of the respondents thought there are no efforts by the DDGR to make the local communities change their perception. These respondents thought the number of jobs offered were too few, some pointed out the hostility of the game rangers and their ruthlessness in dealing with the surrounding communities as some of the indicators of the DDGR management's lack of commitment towards changing their current negative perception.

Issues of natural resource tenure

Whereas 62(77%) of the respondents as reflected in figure 10 said they are not guaranteed any form of protected area resource use, 18(23%) said they are guaranteed some of the PA resources.

Figure 10: Communities guarantee to PA resource use



Most of the former came from Ncabasa, Sheshegu, and Gwabeni. Access to PA resources for Nomtayi community members are limited to water pumped by the windmill located in the game reserve. In all the villages, Tweni residents have the most access to PA resources, which include among others, limited grazing within the village and the water hole that also serve the DDGR game rangers' quarters and the abattoir.

Most respondents, 67(84%) agreed that the community should be given some form of guaranteed resource use like the enclosed water hole on the DDGR boundary at Nomtayi (plate 3). Most respondents from Sheshegu and Ncabasa who have an apparent shortage of pasture feel there should be a structured plan for their animals to graze in the game reserve. Other respondents particularly those who stay in Tweni, Nomtayi and Gwabeni feel the reserve management should give them unlimited access for firewood collection. Generally, community members from all the villages thought herbalists should freely access the game reserve for herbal collection. Virtually all the respondents from the villages surveyed desired that a hunting

quota be accorded to the community. From the survey, 67(84%) thought the game reserve management should provide them with meat during cultural or funeral ceremonies. The remaining 13 (16%) who thought otherwise, felt it would be hard to monitor access to given resources and curb abuse in the wake of the current claims of the DDGR.

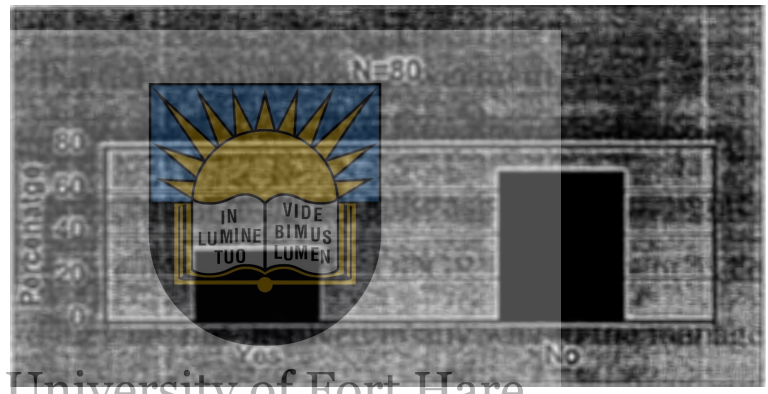
Plate 3: A water hole fenced within the DDGR at Nomtayi

There was a general affirmation 62(78%) that the community should be given part of the DDGR accruals while 18(22%) felt otherwise. Those who responded in affirmative felt the accruals should be administered on at least quarterly basis. Others felt the money should be channelled to community social welfare groups while others felt the accruals should be invested in community projects that would help create jobs and provide sustainable income to the local people. Those who thought otherwise were sceptical of the DDGR's commitment to such a scheme when they couldn't even allow access to the game reserve resources.

Participation and empowerment

Most of the community members said they do not have any form of participation in the management of the DDGR, as reflected in figure 11, 26(32%) affirmed they are involved in the DDGR management as compared to 54(68%) who said they are not involved in any way in the management of the of the DDGR.

Figure 11: Community involvement



However, an interview with individual members of the "defunct" community forum showed that there existed community representation in the management of the DDGR initiated by the Institute of Social and Economic Research (ISER) from Rhodes University. Unfortunately, even the chairman could not affirm whether the forum was still operational or not. Community forum members from Sheshegu, Gwabeni and Ncabasa said the forum still exists even though they had a meeting for almost three years. An interview with a member of the institute who initiated concept revealed that despite overwhelming positive response from the local communities, lack of initiative by ECTB and the DDGR management was one of the reasons behind the collapse of the forum. According to two community-forum members

interviewed at Sheshegu and Ncabasa, the transfer of the CLO from the DGGR to ECTB headquarters did immensely affect the operations of the forum.

Apart from the mentioned Inxuba community forum, any other form of community representation particularly in Sheshegu, Ncabasa and Gwabeni is absent. At Nomtayi and Tweni, however, community members indicated that they usually appointed two community members especially during conflicts. Two such incidences in Tweni were when the community was given a notice to vacate. Another is when game rangers shoot community members' dogs in an area that the DDGR management use as a dumping site for wildlife carcass waste from the abattoir.

With lack of representation from Sheshegu, Gwabeni, Ncabasa, 66(82%) of the respondents thought representation in the game reserve was long overdue while those who have some form of representation (Tweni and Nomtayi) thought that the current representatives were aged and were often compromised by the game reserve management. Except one community forum member from Ncabasa who complained her area of representation is too expansive (Ngcabasa and the wider Middle-Drift), most of the respondents thought numbers are not necessarily important, but adequate representation addressing real issues coupled with adequate youth involvement is of crucial importance.

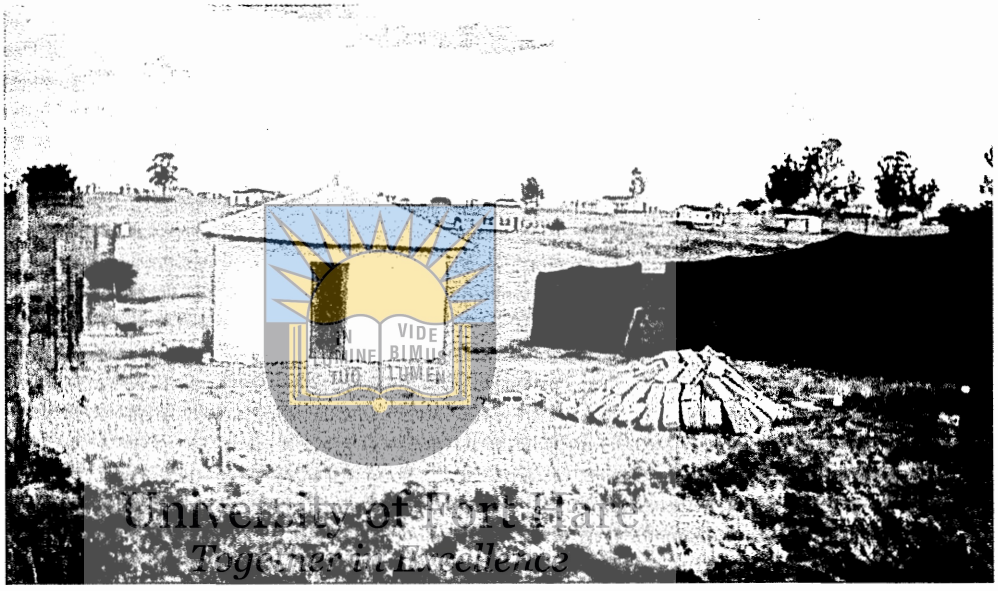
From the survey, 50(63%) respondents felt the reserve management is not doing enough to initiate consultation with local communities. According to the "forum" chairman, the Inxuba Conservation and Economic Forum (ICEF)

was established in 1996 with two representatives from all the villages surrounding the DDGR except the expansive Sheshegu that had three. This forum met on a monthly basis and acted as a conduit between the DDGR and the surrounding communities. From the responses in the field, 30(37%) thought there are adequate efforts to initiate consultations while 50(63%) thought there are no consultations initiatives. Those who affirmed gave an example of the Inxuba community forum, which is apparently defunct as an example of non-existent community representation. An interview with the "forum chairman" established that representatives from the DDGR seldom attended the forum meetings despite providing meeting facilities. To community members, this was an indication of lack of initiative towards communities' self-empowerment and collaborative DDGR management. Community members also identified the unfilled Community Liaison Officers position as an indication of the game reserves management lack of commitment to communities' aspirations and welfare. As indicated earlier it was hard to establish whether the community forum was still operational or not; whereas the game reserve manager indicated the collapse of the forum as one of their main failures towards a collaborative management, respondents interviewed seemed to believe that the forum was still in existence.

Although it was apparent that the DDGR maintained the earth road from Peddie to Alice, 68(76%) of the respondents said the DDGR had never initiated any development projects. When the above was mentioned, some respondents said the road was maintained for the DDGR's business expedience that is for tourist's connection from Peddie and Alice tar roads.

According to the community forum members from Sheshegu and Gwabeni, the proposed beadwork and indigenous tree nursery projects shown in Plate 4 are yet to be effected.

Plate 4: Sheshegu "Stalled" beadwork project structure (left) and indigenous trees Project (right)



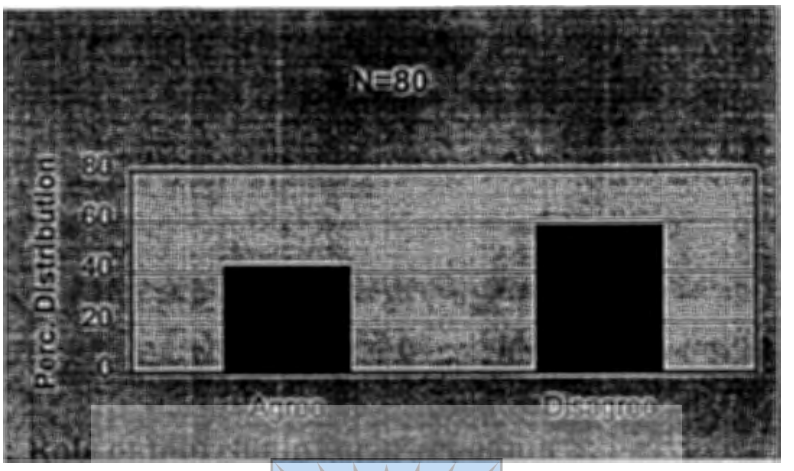
Contrary to the game reserve manager's view that the beadwork project was still on track, one of the beadwork-training beneficiaries from Gwabeni was sceptical of the viability of the project as no clear proposal of how the project was to work seemed to be in place. There are eight volunteers who take turns running the tree nursery in Sheshegu. According to one of the volunteers interviewed, they have very little to do in the tree nursery as the DDGR management has been promising indigenous tree seeds and other equipment for the last two years.

From the survey most community members 57(71%) felt the DDGR does not participate in any other form of development projects outside the game reserve. In Sheshegu, Gwabeni and Ncabasa, there were a relatively higher number of respondents who thought there were some forms of game reserve related development activities in their villages. It is in these villages that the proposed villages are located.

The influence of the DDGR in supporting the communities could be most felt in Ncabasa where the community forum members cited fencing of the primary and secondary school grounds and a lawn mower donated by the DDGR to the secondary school. In Tweni however, the picture was contrasting, their school (Naudes Hoek primary) had a single dilapidated five room building serving 154 children with a single teacher. After primary school education, those who wished to join high school have to travel over 5km to Ncabasa. The distance was even longer when the Kat River broke its banks and they had to take a longer main road over a bridge. Generally most respondents felt they would welcome any form of participation by the DDGR in the socio-economic development of the local communities to augment the already existing ones such as annual game drives offered by the DDGR to all primary and secondary schools and trophy awards during community sports competitions.

Whereas 34(42%) felt that tourism have played an important role in the socio-economic and cultural development of the local communities, 46(58%) of the respondents as reflected in Figure 12 thought otherwise.

Figure 12: Role of tourism in socio-economic development



Those who thought tourism has had a positive impact cited the provision of employment in the game reserve particularly tour guides and lodge attendants, (known as aunties). Those who thought otherwise said the local communities are not given first priority when it comes to jobs offered by the game reserve management. Most respondents suggested opening of curio shops run by the surrounding communities to enable them benefit from tourism, while others suggested that the surrounding villages should also be considered as tourist targets. Although the game reserve manager said the curio shop initiative was in place, there was no evidence of any activity, save for the physical activities in Sheshegu and Gwabeni.

From the survey 65(81%), suggested frequent consultations between the DDGR and the local communities before crucial decisions are taken, while others thought collaborative management of the PA resources could only be achieved through the fulfillment of the promises (jobs, schools, roads, water among others) made before the creation of the DDGR.

Decentralization and CBOs

Community members felt they were not involved in making decisions that affected them. Whereas 61(76%) affirmed this, the remaining 19(24%) mentioned the efforts of the defunct community forum as a way of decentralizing decisions. Representation at higher decision making levels was lacking as well, 67(84%) of the respondents said they don't know of anybody in their village who sat in the district or provincial conservation decision-making organs. The remaining 21(26%) didn't know whether such representation existed or not.

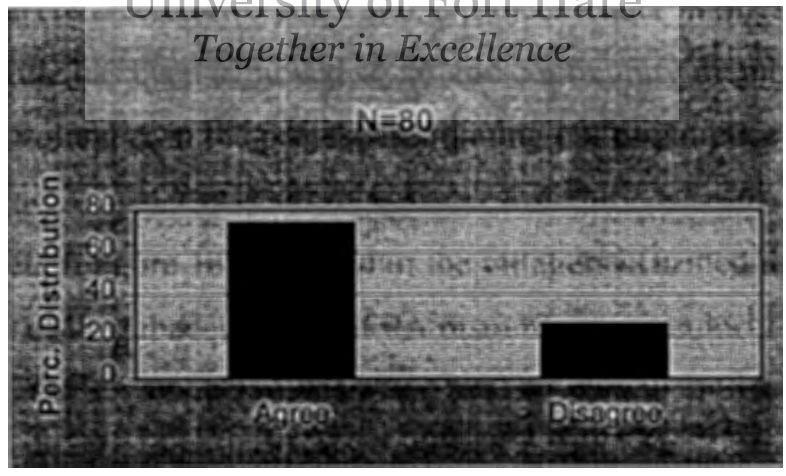
Out of the 80 respondents interviewed, 54(68%) of the respondents said there were no community based conservation organization in their villages. The remaining 22(28%) mentioned the apparently defunct community forum, as a conservation organization in their village, however the bulk of them couldn't identify any positive contribution by the forum.

Most of the respondents were in favour of decentralized decision-making 54(67%) while the remaining 26(33%) thought there was no need to decentralize decision-making. Some respondents suggested that the community members should elect representatives who should in turn present their views to the DDGR management and the ECTB. Others felt that before important decisions are undertaken, a referendum should be conducted in the villages affected before decisions are effected while others thought the elected community representatives should be permanently employed and salaried as a way of motivation.

Although 30(38%) of the respondents agreed that socio-economic skills projects initiated by the DDGR exist, 50(62%) were sceptical of the project's viability as those trained two years ago are yet to apply and benefit from skills acquired. According to the researcher's observation, plans to start a beadwork project at Gwabeni and Sheshegu have apparently stalled. Since the physical structures were erected two years ago, a project leader in Sheshegu indicated that very little has been achieved so far and community members especially those who volunteer in the project are running out of patience.

As indicated in figure 13, 59(74%) of the villagers affirmed that there are some form of illegal acquisition of PA resources, particularly wildlife poaching.

Figure 13: Illegal PA resource use prevalence



However, the remaining 21(26%) said there is no poaching. According to the game reserve manager, one of the biggest threats to the management of the DDGR, which was also one of the main causes of conflicts between the DDGR and the surrounding communities, is "poaching". Other PA resources

illegally accessed are wood and medicinal herbs particularly in Nomtayi and Tweni. Although traditional healers existed in the area of survey, the vegetation surrounding the DDGR has been degraded (as opposed to the DDGR) to sustain their practice. This leaves the PA as the only option for herbal collection.

Generally cultural resource management has not been considered in the management of the DDGR as affirmed by 66(82%) respondents. Most of the community members feel the DDGR has never made any serious effort to make use of indigenous resource management knowledge in the management of the DDGR. From the survey 61(76%) said there were no specialists involved in the management of the DDGR. According to the game reserve manager, they have not been able to implement cultural resource management strategies because they feel it is not only open to abuse but would also entail extra management costs.

Contentious issues between the communities and the game reserve

A focused group discussion at Tweni revealed that the game reserve management treats them with outright hostility. They felt this was a calculated strategy to make their current occupation inhospitable so that they could move. Abattoir management disposes of game carcass waste within reach of the villagers' dogs and shoots them for feeding on the meat. Another contentious issue in Tweni village is the borehole. Whereas the water that serves the abattoir and the rangers' quarters' downhill is treated, the community members have to do with untreated water from the same tank. In Sheshegu limited grazing land on the space that is apparently degraded seem to be the biggest cause for their discontent. The local communities view the

game reserve as a waste of pastureland. This applies to Ncabasa as well. In Gwabeni, the bone of contention seems to be the issue of jobs in the game reserve. According to respondents from this village, they highly dispute employment of people who don't come from the surrounding villages in the DDGR.

The least discontented villagers seem to come from Nomtayi. From the economic survey this seem to be the poorest village of all the five. However, to them compensation seem to have been adequate and their access to the Sam Knot Church and water pumped by the windmill may have been a fair deal.

Tweni community members complained that the reserve management only give them meat when there is a power failure and fear the meat would go bad, 63(79%) felt they should be guaranteed meat from the abattoir, especially during the hunting season. Most of the respondents felt the amount being charged for meat (R 12 per kg in July 2002) is far beyond their reach. Some of them observed that the game reserve is already making a lot of money as the hunters pay for game they kill depending on the weight of the animal (at the rate of R7/kg of carcass). In Gwabeni, most of the community members want to be allowed to hunt during the hunting season as well. In contrast, most respondents from Ncabasa and Sheshegu felt such a scheme was impractical due to the large number of community members who would wish to partake hunting expeditions.

SUMMARY

This chapter was aimed at presenting the data acquired in the field. The chapter started by presenting the socio-economic background of the study area. The chapter went further to present the issues under investigation as enumerated in the study objectives. A highlight of the contentious issues between the local communities and the PA management concludes this chapter.

CHAPTER V

DATA DISCUSSION

INTRODUCTION

The aim of this chapter is to discuss the issues pertaining to the potential capabilities of local people in sustainable PA management. The chapter starts by an analysis of the implication of the background information gathered from the field to sustainable PA management. It further discusses crucial issues that should be considered in a bid to harness local communities potential in sustainable PA management.

Role of women in PA management initiatives

The high female composition compared to males in the communities surrounding the DDGR is attributed to emigration of males to urban areas in search of both formal and informal employment. Consequently, there are a higher number of females compared to males. However, male representation is higher than female representation for instance, out of the total eleven representatives who sat in the ICEF. Only three were females. In this regard there is need to recognize the potential of women (by the strength of their numbers) as indispensable actors in sustainable community/PA management. The survey further established that women still have the main responsibility of meeting household needs and are therefore major decision makers in determining natural resource consumption trends. Women therefore have an essential role to play in the development of sustainable and ecologically sound consumption and production patterns. Nevertheless, the situations seem to be slowly changing, as could be exhibited by community forum representation where three out of the five interviewed were females. Despite this a lot still

has still to be done, recognition of women leadership roles should become a norm rather than an exception, this should be augmented by clear efforts towards strengthening women's capabilities not only in execution of conservation and development initiatives but also to participate effectively in decision making. This should be achieved through increased information access, education and awareness, management and mobilization skills.

Implication of high population on PA management

Expanding population and consequent increase in their resource requirement stimulates PA resource use conflicts (Madulu 2001:4). Anderson and Grove (1987:196) further argue that resource shortages associated with high population densities create competition and tension such that the existing management institutions may be unable to resolve. The large family sizes of seven (7) members per household and consequently high population that has led to an increased natural resource requirement for subsistence can be viewed as a challenge to collaborative natural resource management in the study area. In this regard any efforts to address resource use conflicts should consider appropriate means of either stabilizing or lowering population growth, not only to reduce demand on PA resources but also help improve the overall living standards of the people.

Literacy levels and PA management

Although not always a prerequisite, the level of literacy can play a pertinent role in achieving consensus and attaining a win-win situation between the local communities and the conservation authorities. It is unlikely that literacy is a problem to integrative PA management in the study area as most respondents had either primary or secondary education. Furthermore those

who have this level of education are middle aged with potential of getting employment in the game reserve. The level of education places a ceiling on the type of jobs available. The residents can only be employed as game warders and lodge attendants, hence are restricted to low cadre jobs due to academic qualifications. In this regard there is need for local communities surrounding the DDGR to pursue tertiary level training to make them competitive enough to acquire well paying jobs in the game reserve. It is important that local communities be equipped with not only formal but also vocational education, which will make them more marketable for jobs offered in the game reserve, as well as the wider job market afar. Informal education will also help them harness tourism related economic accruals through craft merchandise and cultural dances. The above are bound to have multiplier benefits like reduction in the clamour for jobs, claims for protected area resources and reduction in reliance of the DDGR resources. The role of informal education should also be emphasised to help the local people keep in touch with the often less expensive but rewarding cultural natural resource conservation skills.

Unemployment in the GFR region

Unemployment in the study area signifies an urgent need for exploration of more employment opportunities for local people. Although a few community members have managed to get employment in the game reserve, low levels of education and lack of appropriate skills puts them at a disadvantage to favourably compete for the scarce jobs available in the game reserve. This has left the game reserve management with no option but to employ people from neighbouring townships like Alice (27km), Grahamstown (40km) Peddie (26km) and Middle Drift (29km), often to the dissatisfaction of the

surrounding communities. To augment on the meagre incomes that the communities get from the game reserve, there should be initiation of other sustainable socio-economic projects that will enable the local communities generate extra income. Although this seem to have been given a try by the DDGR in collaboration with the ECTB and the surrounding communities, lack of commitment particularly from the above conservation authorities seem to be the main hiccup to the initiation of the projects. On the other hand communities commitment to the proposed projects could be seen from the tenacity of the community volunteers who had worked in the indigenous tree nursery at Sheshegu village for over three years.

Income earning options

Income opportunities in the areas surrounding the DDGR are very limited. The key income earning activity in the surrounding villages seem to be livestock farming, which is fast becoming unviable due to lack of pastures as a result of land degradation. Most people depend on pension money, which is often too little to comfortably see them through the month. Opportunities for income generation will certainly be welcome to augment the few income opportunities that exist. Monthly income earnings in areas surrounding the DDGR are very low (over 91% of residents earn below R2000 per month). The bulk of it either being monies earned from DDGR employment or pension earnings. As things stand, the communities seem to gain very little from the PA as an avenue to make extra income. As observed by Cocks (1999:114) this region has very few entrepreneurial activities associated with the use of natural resources. For communities that stay outside the game reserve, access to the game reserve is curtailed as collection for PA resources for any purpose is prohibited. For those who still stay within the reserve (Tweni community),

usage of PA resources is limited to a portion of land that is already degraded hence stock farming as a means of making extra income is almost impossible. In this regard a collaborative approach (between the surrounding communities and the PA) in exploration of new income earning opportunities will go a long way in improving the living standards of the surrounding communities.

Perception to the existence of the DDGR

Most people living within the study area perceive the existence of the DDGR negatively. This can be attributed to the strict protectionism approach adopted by the conservation authorities. Trakolis, (2001:228) observes that success in PA management depends not just on government support and other management organizations. It also depends on reaction, perception and involvement of the local people. Trakolis, (2001:227) further observes human communities especially those who are living in and around PAs, often have long standing relationships with areas endowed with these resources that usually play a great role in their livelihoods. In this regard any efforts geared towards alienation of the given resources from the users will no doubt be negatively perceived. The communities surrounding the DDGR seem to value wildlife protection. Although most of the community members gave reasons like the role of PA resources in nature's beauty, protection from extinction and safeguarding the resource for future generation, the overriding reason seems to be the utilitarian aspect of the given resources augmented by the communities fear of the depletion of these resources. In this regard the greatest challenge to existing conservation initiatives will therefore be how to encourage the communities current positive view on wildlife by among others providing for communities needs whilst pursuing conservation objectives.

Although majority of respondents (83%) perceived wildlife protection positively, a lesser percentage (56%) of the same respondents viewed the creation of DDGR positively. This was due to the apparent apprehension of their future relationship with the given resources. The main reason for the drop in perception is the apparent loss of claim in the areas covered by the DDGR in the wake of anticipated land reform. Most of the community members inhabiting the surrounding villages particularly in Sheshegu and Ncabasa wanted to inherit the areas enclosed into the DDGR due to its high potential grazing land for their livestock, which in turn was to boost their economic potential. However, their hopes to exploit these resources were extinguished with the creation of the game reserve. Although a lot of promises came with the creation of the DDGR (like employment in the DDGR and tourism opportunities), these promises seem to have gone unfulfilled hence accounting for the 58(72%) to 22(28%) decline in perception.

The issue of consultation in the management of the DDGR seem to be another source of negative perception towards the PA. Buckles (1999:267) suggest that information should play a catalytic role in perception change. These should include the process of exposing, validating and sharing information about the resource and its use. Response from the communities indicated that the reserve management do not consider their views in making decisions that affect them. Some of the community members in the study area seem to be well aware of the opportunities that come with PA creation especially tourism related jobs and multiplier economic benefits that come with this. These account for the lesser response that viewed the establishment of the DDGR positively.

Role of consultation in PA management

The role of adequate and comprehensive consultation before the creation of a given PA can be considered as an important recipe to its future success. Unfortunately lack of adequate consultation seems to have been one of the major shortcomings in the creation of the DDGR. This situation can still however be redeemed by initiating consultation and building consensus between the PA management and the surrounding communities. Buckles, (1999:267) observes that although information and consultation alone may be insufficient in changing peoples view to the PA, it is a prerequisite in building consensus based plans. It improves the understanding of all parties and engages those at the periphery. Of crucial importance to be addressed is how the community will continue benefiting from the given PA resources as shown in case study 2 and 3 (page 53 and 54 respectively).

Issues of compensation

To make the resource users shift from a given resource usage requires a well-negotiated consensus based compensation scheme. If possible a negotiated sustainable exploitation of critical PA resources should be reached. From the local communities perspective the compensation offered by the conservation authorities seem to have been inadequate with community members being authorised to "take it or leave it". Some community members have refused since refused to take the offer particularly in Tweni village. Inadequate compensation can be seen as one of the reasons that have led to the antagonism between the local communities and the DDGR management antagonised local communities and the PA management.

Competing ends

Due to an apparent alienation of the local communities from the DDGR management, communities surrounding feel the game reserve could be used for some other forms of land use. The existence of the DDGR is perceived by the surrounding communities as a hindrance rather than an opportunity to their socio-economic welfare. This can be attributed to the fact that other forms of land use seem to yield more benefits compared to "negligible" benefits they get from the PA. In this regard it is important that the existence of the DDGR be justified in the eyes of the surrounding communities by more active involvement of the surrounding communities socio-economic welfare. Bearing in mind that the current privately owned economic activities seem to yield much more economic output than what local communities think they earn from the game reserve, local communities will continue viewing rich rangeland in the DDGR as a denied opportunity to improve their living standards.

Role of resource tenure in PA management

At present, most rural people prefer livestock because they can be easily owned, used and marketed hence easily be incorporated into the households socio-economic production system. Potentially, wildlife has economic and ecological advantage over livestock but in practice, local communities do not regard it as a valuable form of land-use because they lack secure tenure rights over wildlife. Consequently local people will generally prefer livestock production to keeping lands under wildlife (Hulton and Dickson, 2000:153).

According to Western and Wright (1994:527) an integrative PA management requires creation of clear and unequivocal property rights that consider varied

vested interest within the framework of sustainable resource management. The study revealed a complete absence of any form of community resource tenure in the area of study, consequently this has worked against the surrounding communities socio-economic development. It is important that allowable structured use of the available critical resources to the local communities be considered as part of the collaborative PA management initiative. This should move beyond "mere" fuel wood and fruit collection (as indicated in a questionnaire response by the game reserve manger) to planned access of grazing land in the PA. From the communities perspective PA resources being offered (limited fuel wood and prickly pears collection) should be seen as a right rather than a privilege. These resources are also perceived to be superficial towards alleviating the economic problems bedevilling the communities surrounding the DDGR. Pacey (1994:63) observes that it is unlikely that vague appeal for greater community participation will succeed if they gloss over basic tenure issues.

Since it is in the communities' desire that at least some portion of PA resources be guaranteed in the form of firewood and medicinal herbs collection, wildlife hunting as well as limited grazing, the challenge remains on how to structure such schemes to ensure that community needs and conservation initiatives are pursued concurrently. Resource conservation decisions should therefore pursue consensus based multi-stakeholder approach, in this case emphasis should be laid on involving primary users of the PA resources and others deemed to be affected by PA natural resource management (Anderson and Grove 1987:193).

The land reform Act should be speeded up to allow the surrounding communities to own land. Although existing land in the surrounding villages seem to be expansive enough to sustain the current livestock population, its current degraded state makes it hard to sustain any agricultural activity. It is hoped that individual ownership system will therefore act as an incentive for prudent land management, which will in turn increase overall land productivity including grazing pastures. Consequently this will not only increase the lands potential to sustain more livestock but also reduce the current claims for more grazing land in the game reserve.

Placing socio-economic issues within conservation framework

Community integration approaches to wildlife conservation usually have a strong economic rationale. They are typically based on premises that if local people participate in PA management and economically benefit from this participation then a win-win situation will be achieved (Emerton, 1999:9). According to Western and Pearl (1989:156) the question is no longer whether conservation is necessary part of social and economic development, but rather how conservation can be achieved in the face of constantly increasing demands from an expanding population. It is therefore important that PA management get more involved in the ever changing and diverse demands of the surrounding communities socio-economic development. According to Bellamy et al. (2001:408) it is crucial to identify the most critical social, economic and institutional factors that are linked to collaborative natural resource management initiatives. Where as the surrounding communities concede that the amounts of jobs offered by the PA has had some positive impact on their socio-economic status, high unemployment levels and low economic activity in the surrounding communities make these efforts go

unnoticed. The surrounding communities also want more jobs allocated to them by the game reserve authorities and if possible by a quota system implemented to guarantee them access to jobs in the DDGR.

Tourism, conservation and community empowerment

Incomes from tourism need to filter down to local people whose land and interests are affected in one-way or the other (Swanson and Barbier, 1992:136). Local communities can benefit from proceeds of parks and nature reserves while having a positive impact on biodiversity preservation and economic development (Fabricius and Burger, 1996:6). This is necessary in order to create adequate incentives for local populations to protect land and wildlife. The communities surrounding the DDGR seem to have gained very little from the possible tourism related activities like sale of crafts and community based cultural promotion. These avenues seem to go unexplored, it is therefore important that tourism related income earning activities be fully identified and local communities be empowered to take advantage of them. If carefully organised, tourism can help offset the impact of unemployment. However, the main objective should be to use tourism as an avenue to improve quality of life and overall community growth.

Role of consultation in ensuring PA sustainability

As things stand now there seem to be a breakdown of communication between the local community and the DDGR management as the latter pursue their own objectives without the involvement of the local communities. With the absence of a vibrant community representation forum there seems to be no link between the local communities and reserve management. The DDGR management efforts seem to be mostly geared towards financial viability with

issues concerning the local communities pushed to the periphery. Frequent consultation between the local community and the DDGR should be pursued as a solution to adequate integration to PA management. Bellamy et al (2001:410) observes that consultation efforts should be geared towards achieving better outcome including amelioration or manageability of arising problems. Decisions and implementations need to be based on multi stakeholders' participation and agreement, which could be a vital step to ensure conservation of biodiversity on a sustainable basis.

Role of grass root institutions in collaborative PA management.

Too often, external planners consider existing land use systems as inappropriate or destructive and attempt to develop technical classifications. This proves impractical and fails to take account of critical socio-ecological interactions. Moreover it reduces an opportunity for local communities to influence activities that affect them and have control over "their" land resources (Knight et al., 1997:93). Initiating programs requires vibrant and self-mobilised grass root representation that is a true reflection of the local communities wishes. Rather than outside program mangers and policy makers unilaterily defining conservation programs, community representation should be empowered through a process of group learning and consensus building to not only manage PA resources but also to help improve the local communities livelihoods (Anderson and Grove, 1997:194). However, it will be impossible to achieve these objectives without first filling the institutional vacuum and establishment of popular and adequate representation between the surrounding communities and the DDGR. Perhaps a starting point will be the identification and support of a creative, motivated and diversified local leadership while working on a feasible institutional framework.

Unfortunately, past experience (like the case of ICEF) shows that such efforts have not been fully supported by the DDGR management and the ECTB. In this regard efforts to empower CBOs and decentralize decision-making should be accompanied by adequate funding, training and capacity building of the established initiatives (Buckles, 1999:263)

Empowering local people

The yet to be initiated projects have so far had very little positive impact in empowering local communities both socially and economically. Whereas it is agreed that the conception of the two projects (bead work and tree nursery) are a positive step, their implementation have been discouraging so far, the dragging of the initiatives seems to have worn out the local communities zeal to fully participate in the identified projects. The volunteers who have been involved with the project for almost two years exhibit this.

It is therefore important that conservation authorities take a more proactive role in the socio-economic welfare of the surrounding local communities. This can be achieved by exhibition of sensitivity and genuine commitment to the core needs of the surrounding communities. Mboje and Ntiamoa (2000:57) recommends that people's well being should be maintained or improved through equitable distribution of costs and benefits of production system. He further recommends that this should be done to allow for regeneration or replenishment of the resource base over time with future generations in mind.

Dealing with PA illegal acquisition

Suppression of a community's right of exploitation of PA resources, or a share of any proceeds resulting from PA resource utilization may actually encourage local people to hunt illegally or support outsiders engaged in these activities. Furthermore, local communities may view wildlife conservation as asking them to put up conservation costs with little or no benefit or compensation in return (Swanson and Barbier, 1992:131). This problem can be circumvented by fully enlisting the surrounding communities in policing and monitoring of the PA resources. Since it is very unlikely that the surrounding communities will accept these without any form of reciprocation from the DDGR management, such a scheme will have to be put within the wider framework of integrating the surrounding communities into the management of the DDGR, which should include among others sharing of benefits and PA resources. Ultimately, a combination of state enforced negative sanctions and community based genuine and recognised incentives is the optimal solution to the community/wildlife conservation problems (Hulton and Dickson, 2000:155).

Indigenous knowledge and sustainable PA management

More often than not indigenous knowledge is an under-utilised resource in sustainable PA development process. Modern resource policy makers tend to pay little attention to what traditional cultures have to offer. Policy makers prefer to base management practices on strategies and techniques, which have worked in other settings which may not necessarily be suited for local conditions Kariro and Juma, (1991:35). However, it should be noted that, within African rural setting, ecological conditions, social institutions and

available technologies are comparable to what prevailed in those regions 100years ago. These form a solid knowledge base for comparative purposes and also as a basis for knowledge to learn from (Kariro and Juma, 1991:35). In this regard there is need to the DDGR management and the ECTB to recognize the role of cultural resource management strategies in the management of the given natural resources, and design ways in which these strategies can be applied in the management of the PA resources. To achieve this, will require a careful blend of existing local indigenous knowledge with national and international experiences in PA management and community development. As noted by Mboje and Ntiamoa (2000:28) indigenous knowledge can help promote biodiversity conservation by characterizing resource uses that are appropriate for the particular local landscape. In fact incorporating indigenous knowledge into conservation and development activities is believed to be an important mechanism for ensuring most efficient and productive use of natural resources in the short and long-term without jeopardizing the given resource.

External support for conservation initiatives

There are many areas in which external support for local conflict management process is vital. This may include information collection, validation and sharing as well as skills development, mediation and legitimization of outcomes. Such support is particularly important once a conflict management process has generated a positive outcome. Implementation of consensus-based conflict solution will usually require services, investment, monitoring and feedback. In many cases, local resources for activities are insufficient, and external support, whether from the state or from donors, will be essential (Buckles, 1999: 276). External support should also concentrate on investing

in various forms of socio-economic projects that will help improve the local peoples living standards.

The implication of existing policies on PAs perception

Rosenberg and Korsmo (2001:299) observes that, stakeholders are apt to differ in their views of natural resources conservation policies because they are to have different interests that span different time frames. Local people who rely upon the resources tend to look at policy from a perspective of "how the policy affects them in the short term" (for example hunting restrictions). In the best circumstance natural resource management policymaking should be based on consensus and compromise because of the given different needs and priorities of all stakeholders. Only when majority of the people that policy affects are contented can a policy be said to be good. From the opposite perspective, a bad policy is one that fails to address the concern, needs, and priorities of stakeholders who have ability to prevent or subvert effective implementation of the policy. According to Kapoor (2001:271), the high degree of state power in the existing environmental policies has translated into the absence or removal of avenues for input and contestation by the people. A crucial step in policy formulation is to recognize that there are multiple stakeholders with varying interests in a given set of PA resources.

While the government may see biodiversity in terms of economic values related to consumptive uses such as timber exploitation and wild animal trade and non-consumptive uses such as tourism, rural inhabitants tend to be more concerned with direct subsistence values of biodiversity like food, medicine and building materials. In this regard the local communities often perceive policies often designed at the national level, which entail "cordoning" of the

given critical resources negatively. Although the South African environmental policy seem to recognize the important role played by varied stakeholders particularly local communities in successful PA management, very little seems to have been achieved in practice. Most PAs still adopt the protectionism approach with absolute disregard of the surrounding communities needs. This is evident through a wide range of conflicts of interest between the local communities and PAs. Any policy innovation should therefore seek to support the application of conflict management tools and methods among key stakeholders. These measures would amount to powerful commitment not only to consensus based conflict management, but also to a new community and user-centered paradigm of natural resource management (Buckles, 1999:277). However the above will be hard to achieve unless the existing policy considers creating avenues that will encourage local peoples participation, increase their negotiating strength and implement their views in PA management.

SUMMARY

This Chapter was aimed at critically discussing the data acquired from the field. Main issues pertaining to this study as enumerated in the objectives have been discussed. Much attention has further been focused on the core issues affecting the DDGR/community relationship.

CHAPTER VI

CONCLUSION AND RECOMMENDATION

INTRODUCTION

The first part of this chapter enumerates the key conclusions established from this study. The second part of the chapter presents the researchers proposed recommendations.

Basing on the research findings acquired from the field the researcher came up with the following conclusions and recommendations;

Public Participation

There is a general lack of avenues for the local people's involvement in the management of the DDGR (following the collapse of the ICEF) as well as any form of benefit reciprocation between the DDGR and the local communities. This calls for a broad based strategy aimed at enlisting local peoples' participation in the management of the game reserve. The participation should also aim at balancing community conservation costs with rewards. This should involve addressing "real" needs of the people, which should include among others, structured access to grazing pastures in the DDGR. More participatatory efforts should also be channelled towards identification of diversified local leadership, involvement in planning and management with emphasis on building capacity of the local communities. The ECTB and the DDGR should take an active role to aid local communities pursue these objectives through provision of adequate funding and expertise.

Resource ownership and resources use tenure

With the planned land reform Act un-effected, communities lack incentive to conserve and sustainably invest in the communal lands surrounding the DDGR. Livestock farming was one of the most important income earning activity in the study area, this had consequently led to large scale land degradation in the study area. (see plate 2;page 77). In this regard, concerned stakeholders should speed up the land ownership process. This should involve demarcation of physical boundaries to individual ownership so as to curb against land degradation emanating from communal property ownership in the study area. It is important that informed community consent be acquired for land and land tenure ships by discussion and negotiation. Resource ownership and tenure should also be augmented by an increase in local people's capacity to manage resources (through public awareness and information dissemination) within the wider integrative PA management. Group benefits should also be assured, these should be aimed at converting the available benefits into long-term sustainable benefits like schools, infrastructure development and water resource development. In the medium and long-term sustainable use of resources surrounding the DDGR will relieve pressure on the PA resources by the surrounding communities

PA management policies

Although the South African environmental policy recognises the role of socio-economic empowerment in sustainable PA management, enforcement mechanisms to turn these objectives into practice seem to be absent. Decision-making is still based on "top down" approach. For instance, all the DDGR accruals are first remitted to the ECTB, then back to the DDGR basing on their budget proposal, which does not accommodate the needs of the

surrounding communities (figure 11 page 82). In this regard there is need for constant review of the existing policies to suit the specific circumstances of the often diverse conservation sites. These will require that the ECTB and the DDGR be mandated with drawing site-based strategies tailored to suit specific sites that are within their implementation capabilities. Localised efforts should be encouraged to take an active role adopting the existing environmental policies to ensure they keep in tune with the dynamism of the ever-changing communities and conservation needs.

Community based institutions

With an apparent collapse of the ICEF, community based conservation institutions are non-existent. In this regard, there is need to establish and strengthen community based conservation and development institutions. These institutions should aim among others, harnessing local peoples potential in natural resource management through participatory management. Conservation authorities and other stakeholders should encourage both vertical and horizontal linkages at national, regional and local levels. At the grass root level, ECTB and DDGR should encourage identification and registration of formal community based institutions so that community participation is facilitated. Adequate training of these institutions should augment provision of funds with particular emphasis on managerial and mobilisation capabilities.

Skills Transfer

There is an absence of functional community based local knowledge information flow structures. This has further been worsened by lack of the DDGR management to provide channels for input by individuals who hold

this knowledge (page 90; paragraph 2). Consequently, local knowledge on natural resource management should be recognised, reinforced and disseminated not only among the community members but also among other stakeholders involved in areas surrounding the DDGR. Efforts should also be channelled towards documentation and storage of important aspects of local knowledge, not only to make them readily available to planners and managers but also to guard against local knowledge erosion. Environmental awareness should be established in the area of study. It should follow a tiered approach targeting children in schools to village adults. Awareness efforts should be accompanied by vibrant grass root environmental organisations like wildlife clubs, development forums and other forms of organisations that will trigger public consciousness. Local communities should also be encouraged to take fresh initiatives to conservation of renewable resources, natural habitats and wildlife particularly in light of land degradation in areas surrounding the DDGR.

Socio-economic empowerment

Despite several attempts to establish community empowerment projects in the villages surrounding the DDGR, the efforts were so far unsuccessful, this was confirmed by the "stalled" beadwork projects initiated in Sheshegu and Gwabeni. (Plate 4;page 85). To achieve sustainable socio-economic empowerment, the following issues should be considered:

Conservation authorities should consider returning some of the benefits to the local communities especially the accruals that are passed to the ECTB. Stakeholders should aim at initiating projects that are financially and ecologically sustainable, in this regard, a detailed knowledge of socio-

economic circumstances is essential to make concerned stakeholders understand the socio-economic and environmental dynamics of the area.

Extension programs should be designed which not only establish permanent lines of dialogue with reserve management authorities but also provide direct and tangible benefits to local people.

Programs that provide direct and tangible benefits to local people should be combined with those that are designed to educate them. This should include skills training in environmental awareness to enable local communities strengthen their organisational capabilities. This will enhance socio-economic welfare without the further destruction of the environment.

Job opportunities should be given to local people to enable them to make their contribution in the DDGR. Where possible local people should be taken for further training to enable them fit in the job descriptions.

Land degradation in the GFR region

Land degradation in the area of study has immensely affected its pasture output (plate 2; page 77). To be considered, as a matter of urgency are land rehabilitation efforts in the study area. These should not be left to the local communities alone but should be done in collaboration and with support from the departments of Environmental Affairs and Tourism, Land Affairs and Public Works.

Areas for further research

-Establishment and viability of community based organisations in pursuit for conservation objectives and local communities socio-economic development.

-The role of indigenous knowledge in PA sustainability.

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APPENDICES

APPENDIX A

QUESTIONNAIRE TO THE LOCAL COMMUNITIES

Part I

1. Sex:

Male	
Female	

2 Education level:

None	
Primary	
Secondary	
Tertiary	
Any other	

3. Household size:

1-3	
4-7	
8-11	
12+	

4. Employment status:

Employed	
Unemployed	

5. Apart from formal employment if any, what is your other source of income?.....

6. What is your rough monthly income? .....

Perceptions in relation to Policies

7. How do you perceive wildlife protection?

Negatively	
Positively	

Give reason for either.....

.....

8. How did you perceive the creation of the Double Drift Game Reserve?

Negatively	
Positively	

9. Was there any community involvement during the creation of the

game reserve?.....

10. Was the movement from the game reserve voluntary or forceful?

.....

11. Was there any form of-compensation if the movement was

voluntary? .....

If yes give the amount?.....

.....

12. Do you consider this to have been adequate compensation?

Yes	
No	

13. Do you think the Double Drift Game Reserve can be used for other better purposes than wildlife protection?

Yes	
No	

If yes give examples of the land use you

prefer?.....

15. Has your perception on the protection on the protected area changed?

Yes	
No	

If yes why? .....

.....

If no what would like done to your

perception?.....

.....

16. Do you think the reserve management to has made enough efforts make the local communities perceive the reserve positively?

Yes	
No	

Give reason for either.....

.....

Issues of protected area resource tenure

17. Is there any form of guaranteed resource use the community holds in the Double Drift Game Reserve?

Yes	
No	

If yes, in what form? .....

.....

18. Do you think the community should be given some form of guaranteed resource use in the Double Drift Game Reserve?

Yes	
No	

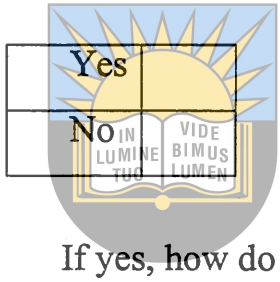
If yes, in what form?.....

.....

If no, why? .....

.....

19. Do you think the community should be guaranteed a share in the Double Drift Game Reserve accruals?



If yes, how do you think these accruals

Should be administered?.....

.....

If no, why? .....

.....

Participation and Empowerment

20. Is there any form of community participation in the management of the Double Drift Game Reserve?

Yes	
No	

If yes, what form of participation? .....

.....

21. Are there any communities' representatives in the game reserve management?

Yes	
No	

If yes, what form of representation? .....

.....

22. Do you think the form of representation is adequate?

Yes	
No	

If no, how do you think the representation

can be improved? .....

23. Do you think there are adequate efforts by the Double Drift Game Reserve management to initiate consultation and participation with the local communities?

Yes	
No	

If yes, how?.....

.....

24. Are there any forms if community empowerment projects initiated by the Double Drift Game Reserve?

Yes	
No	

If yes, give examples of the project? .....

.....

25. Does the Double Drift Game Reserve management support any other forms of community development projects other than the ones they initiate?

Yes	
No	

If yes, what is your opinion about their

involvement?.....

If no what type of projects do you think they

should engage? .....

-

.....

26. Do you think tourism has played any important role in the communities' socio-economic and cultural development?

Yes	
No	

Give examples. .....

.....

27. Give suggestions on ways you think tourism can benefit the

community?.....

.....

Decentralisation and Community Based Organisations.

28. Do you think conservation management authorities take community opinions seriously?

Yes	
No	

- If yes give examples.....

.....

29. Are there any representatives from local community who sit in the district and provincial conservation decision making organs?

Yes	
No	

If yes, do you think it has made any positive

impact on Community protected area

relation.....

.....

30. Are there any conservation related community based organisations in your area?

Yes	
No	

If yes, what role have they played in the socio-

economic development of the local community?

.....

31. Do you think communities' views should fully considered in conservation decision-making?

Yes	
No	

If yes, how can this be achieved? .....

.....

32. Give any suggestions that will enhance collaborative protected area management .....

.....

Cultural Resource Management

33. Do you think cultural management strategies has been applied in the management of the Double Drift Game Reserve?

Yes	
No	

- If yes give examples.....

.....

If no, why? .....

.....

34. Are there any cultural resource "specialists" involved in the management of the Double Drift Game Reserve?

Yes	
No	

35. Do you think the Double Drift Game Reserve has played any important role in enhancing the local communities culture?

Yes	
No	

If yes, how? .....

36. Is there any illegal usage of protected area resources?

Yes	
No	

If yes name them.....

.....

Additional comments.....

.....

.....

APENDIX B

QUESTIONNAIRE TO THE GAME RESERVE MANAGER

1. Are the communities surrounding the game reserve allowed any form of access to the protected area resources?

Yes	
No	

If yes what are some of the resources accessed?.....

2. If yes above how do you ensure that access is not abused? .....

.....

3. Has the reserve initiated any sustainable resource skills with the surrounding communities?

Yes	
No	

If yes name them.....

.....

4. Is there communities' representation in the management of the Double Drift Game Reserve?

Yes	
No	

If yes, of what kind? .....

5. Do local communities participate in any form of tourism activities?

Yes	
No	

If yes, what form of participation?.....

.....

If no, what are the impediment(s)?.....

.....

6. Do you think tourism has the potential to enhance socio-economic development?

Yes	
No	

7.Give your opinion on ways to increase participation and benefits from tourism?.....

.....

8. What is your opinion on the current conservation policy? .....

.....

9. Do you think it addresses the issue community participation and empowerment in protected area management? .....

.....

What do you consider to be its main weakness if any?

.....