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RIGHTS, RESPONSIBILITIES AND BENEFITS: A NAMIBIAN APPROACH TO COMMUNITY-BASED NATURAL RESOURCE MANAGEMENT

by

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at

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ABSTRACT

This thesis focuses on the role of community-based natural resource management for promoting sustainable resource use in Namibia. The central role of benefits, derived from resource utilization is examined as well as how changes in property rights regimes influence peoples' perceptions of costs and benefits, and what implications that carries for sustainable resource utilization at the local level. The aim of this work is to shed light on the role played by property rights and the embedded incentives structure, i.e. rights, benefits and responsibilities, in enhancing sustainable resource use. It also seeks to determine how these elements interact within community-based approaches to natural resource management.

The research involved a review of the relevant literature as well as fieldwork in the Kunene region in northwestern Namibia from January to April 1999. It was found that with the creation of a new policy and legislation, the Namibian CBNRM program has introduced a new common property institution in communities - nature conservancies - that seem to be socially and culturally acceptable to the community members of the conservancies. The conservancy institutions enhance values of participation and equity in common property resource management of wildlife. Essentially, people see this new management regime as potentially beneficial to them. It is evident that the common property regime established in Namibia entails more than rights to receive the benefits from the resource. The rights devolved to the community level also entail non-financial benefits which accrue to the resource user in the form of increasing community empowerment, the sense of ownership over the resources, and the strengthening of their management capacities.

The Namibian program represents an innovative attempt to devolve resource rights to local communities. With its distinctive characteristics, the case study in the Kunene region in Namibia provides some suggestive, through tentative lessons for community-based approaches.

LIST OF ACRONYMS

ADMADE – Administrative design program for management of game areas
CAs – Community Activators
CAMPFIRE – Communal Area Management Program for Indigenous Resources
CBC – Community based conservation
CBNRM – Community-based natural resource management
CBT – Community based tourism
CITES – Convention for International Trade in Endangered Species
CGG – Community Game Guards
CMC – Conservancy Management Committee
CPR – Common Property Resource
CWA – Core Wildlife area
GRN – Government Republic of Namibia
ICDP – Integrated Conservation and Development Project
IRDNC – Intergrated Rural Development and Nature Conservation
LIFE – Living in a Finite Environment
MET – Ministry of Environment and Tourism
MWCT – Ministry of Wildlife Conservation and Tourism
NGO – Non-Governmental Organization
PRA – Participatory Rural Appraisal
PTO – Permission to Occupy
WCED – World Commission on Environment and Development

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CHAPTER 1
INTRODUCTION

Conservation of biological resources is at the forefront of the world agenda and various approaches to encourage conservation are being implemented. These measures range from integrating environmental dimensions into economic policy to the establishment of protected areas. Protected areas are recognized to be important components for conserving the world's remaining biological diversity (Furze et al. 1996). However, experience has shown that traditional approaches for establishing parks and other types of protected areas have, to a large extent, been insensitive to the constraints facing local people in developing countries. In fact, most approaches have used methods such as guards and penalties to exclude local people from the resources they have previously relied on (Wells et al. 1992, Kemf 1993, Bromely 1994, Adams and McShane 1996). The conservation agenda has largely been set and designed by conservationists in the Western world with little knowledge or understanding of local circumstances, and people's relations to the environmental resource they had formerly depended on. The traditional protected area approach has failed in two critical and inter-linked areas: it excludes people from their livelihoods, and thereby jeopardizes the conservation of the resources.

New paradigms responding to these failures have been developing in the last two decades, expanding the definition of conservation and the protected area concept. Concepts such as "Integrated Conservation and Development Projects" (ICDPs) (Wells and Brandon 1992, Larson et al. 1997), "Community-based conservation" (CBC) (Western and Wright 1994) and "Community-based natural resource management" (CBNRM) (Steiner and Rihoy 1995) have been emerging at the forefront of the resource management and sustainable development discussion. Although these approaches have to some extent been different in focus and their respective ultimate objectives, the common thread has been to link conservation of natural resources with rural development, based on local participation of some form (Little 1994). These new approaches represent an important response to the conservation crisis and past failures. Instead of regarding local people who are the users of the resources as a hindrance to conservation, the focus has

shifted towards regarding local people as the key to natural resource conservation (Larson et al. 1998). These new approaches have recognized rural people as meaningful and essential partners in conserving the world's biological diversity (McNeely 1995). Furthermore, such approaches expand the concept of conservation, extending conservation from protected areas[1] onto rural lands in general, where the ultimate threats to biodiversity lie (Western and Wright 1994, Murphree 1994).

The understanding of the concept of participation has varied in these approaches, with regards to the ways local people have been included in project design, management, and sharing of benefits. The fundamental philosophy is simple enough: if local communities can benefit from nature conservation, then biodiversity is more likely to be conserved. If nature conservation policies do not allow for local development and community participation, the resource is more likely to be degraded (Furze et al. 1996). However, the means by which people have participated and benefited varies from being silent beneficiaries of park proceeds on one extreme to taking active management control of natural resources on their land on the other.

In recent years, an increasing understanding of the importance of social empowerment in rural development has led to the focus shifting further towards an approach involving more active means for people to participate and benefit. Increasing numbers of scholars and practitioners have emphasized the need to devolve the actual rights and responsibilities for the resources to local community, i.e. involving property rights and letting people take active charge of their management (Little 1994, Murphree 1994, Larson et al. 1998). Presently, there seems to be a general agreement that establishing secure property rights regimes is an essential prerequisite for sustainable resource use (Panayotou 1993, Lynch and Alcorn 1994, Murphree 1994, Hanna and Munasinghe 1995). When people are given a vested interest in a resource, it changes their perceptions of costs, benefits and discount rates thereby encouraging sustainable forms of utilization.

Under different forms of property rights regimes, people face different kinds of incentives that motivate their resource use behavior. Essentially, property rights regimes

[1] The concept of protected area is here used in a general sense referring to areas where biological conservation in some form is an objective. These include various categories, ranging from strict preservation areas to multiple use zones (see McNeely 1984).

can either provide people with skewed incentives to overexploit the resource, or encourage them to take care of it in the long term, managing it sustainably for present and future benefits. Many theorists previously maintained that private or public property rights where the only regimes that could steer resource users away from the "tragedy"[2] (McCay and Acheson 1987, Ostrom 1990). However, experience has shown that in many cases common property right regimes are in fact the most sustainable form of property right regime with the greatest potential for resource conservation and sustainable development (Berkes 1989, Ostrom 1990).

African wildlife represents a natural resource that has in the past suffered from badly planned conservation efforts and management. During colonial times wildlife became state property and strict preservation laws were implemented, disallowing any further use of the resource by local people. In many cases, the lack of enforcement meant that the breakdown of traditional management structures turned the resource use into an open-access situation. People no longer saw wildlife as a resource but rather as a nuisance that destroyed their crops and killed their livestock (Kiss 1990, Adams and McShane 1996). The incentive to conserve the resource was absent. In the last two decades new forms of wildlife management have been evolving in various parts of Africa where the links between rural development and wildlife conservation have been emphasized. The focus has shifted from wildlife preservation to wildlife utilization as a key to re-establishing the previous management regimes that were equitable and beneficial for local people living with wildlife (Kiss 1990, Barbier 1992, IIED 1994, Steiner and Rihoy 1995).

The success of these new approaches in integrating local development and enhancing resource conservation has been mixed (Brandon and Wells 1992, Larson et al. 1997). Many of the necessary ingredients for successful community participation in resource management are well known, while the exact mix of ingredients needs to be experimented with; no recipe is an overnight success. Most commentators presently maintain that integrated approaches to conservation and rural development represent the

[2] Garret Hardin's (1968) "tragedy of the commons" is a well-known theory in resource management and will be further discussed in chapter 2.

main hope for conserving the world's biological diversity (McNeely 1988, 1993, 1995, Brandon and Wells 1992, Adams and McShane 1996, Larson et al. 1998).

1.1. RATIONALE FOR THE STUDY

Namibia is a country where approaches to wildlife conservation have been shifting in recent years, and provides the case study for this thesis. The country is rich in wildlife resources, which have come under state control in the past. Presently, an extensive community-based natural resource management program is being implemented on communal lands in Namibia so that local rural people can benefit from wildlife and thus acquire a vested interest in its survival (Jones 1996, IRDNC 1997, Brown and Jones 1998).

In Namibia, as elsewhere in Africa, local management systems have become weakened or broken down through state control of wildlife (Jones 1996, Kiss 1990). In the communal areas, the wildlife resources have been under state control and rural communities have had no ownership rights or control over wildlife in their areas. This has led to a conflict situation between wildlife and rural people (IRDNC 1997, Brown and Jones 1998, Jones 1998). Many species, most importantly elephants, cause damage to crops and water points, and large predators kill livestock and endanger the lives of rural people. At the same time tourists have been coming in large numbers to communal areas to view wildlife (Brown 1992). Those who have borne the costs of wildlife conservation have not been enabled to reap the benefits from this important resource. This has alienated people from the resource and encouraged poaching and competing land uses, resulting in the decline in game numbers in communal areas in the northern parts of the country (IRDNC 1997, Brown and Jones 1998).

New legislation was passed in Namibia in 1996 to provide use rights to wildlife for legally constituted community groups in defined areas (Brown and Jones 1998). The underlying philosophy is that this can provide an opportunity to link conservation and development in the rural areas (Jones 1995, IRDNC 1997). These new approaches are based on the concept of *Conservancies* which consist of an area of communal land on which neighboring communities have pooled natural resources for the purpose of

conserving and using wildlife (Jones 1995, De Jager 1996). The conservancies have been established in areas adjacent to national parks, thus providing buffer zones, and in other communal areas rich with wildlife. The focus on expansion beyond the traditional protected areas approach is important in Namibia since only 10% of the larger game species are confined within the national parks (Brown 1992). This inevitably makes rural land and its population an important focal point for any conservation efforts.

The Namibian approach to community-based natural resource management (CBNRM) is interesting for several reasons. Firstly, it is generally regarded as going further in devolving resource rights to local communities than other African conservation programs (Hagen et al. 1998, Jones 1998). Secondly, much emphasis has been placed on social empowerment of rural communities. Regaining the power and responsibilities of wildlife management is regarded to be an important form of benefit for local people. The focus, therefore, is not solely on an instant flow of financial dividends. Thirdly, instead of relying on previous structures of local government or traditional authorities, the CBRNM approach in Namibia has set the aim of creating new, sustainable institutions for wildlife resource management, directly at the community level.

For these reasons Namibia provides an ideal case study for those interested in the evolution and development of CBNRM as a tool for sustainable development. The belief is that the Namibian approach can provide important lessons for the future evolution of community-based approaches, not only with regards to wildlife, but that some of its basic principles are applicable to other resources. It is therefore hoped that this thesis will contribute to the knowledge base in CBNRM theory. Furthermore, that the actual practitioners of CBNRM in Namibia government, NGO's, and the rural communities will benefit from having an outside perspective on the successes and potential pitfalls of their approach as a tool for sustainable development in rural Namibia.

1.2. RESEARCH QUESTIONS

The thesis focuses on the role of CBNRM promoting sustainable resource use, in general as well as more specifically in Namibia. The central role of benefits from resource utilization is examined as well as how changes in property rights regimes

influence people's perceptions of costs and benefits and what implications that carries for sustainable resource utilization at the local level. For the purpose of this thesis, benefits and costs are defined in a broad way to include essentially all the positive and negative aspects people relate to a resource and its management regime. Benefits and costs are essentially motivational factors and thus people's perceptions are of central importance and have implications for the resource sustainability. In much of the community-based conservation (CBC) and CBNRM literature, a basic assumption is that benefits of various kinds will establish a link to sustainable resource management. That is, however, not often elaborated upon in the literature and the aim here is to explore further the link between various benefits and costs to peoples' attitudes towards a given resource, in this case wildlife. The two central research questions are:

- What role do property rights and the embedded incentives structure, i.e. rights, benefits and responsibilities, play in enhancing sustainable resource use at the local level?
- How do these elements interact within community-based approaches to natural resource management?

To shed light on these questions four more specific research questions are put forward in the Namibian context:

- What is the role of CBNRM in Namibia in wildlife conservation and rural development?
- How have property right regimes been developed in the Namibian model and what are the proposed benefits of the CBNRM program?
- How are benefits perceived at the local level, with respect to ownership, responsibility, cultural benefits, financial dividends, employment etc?
- How does the perception of benefits influence resource use behavior?

The broad aim of this thesis is thus to reveal how the creation and perception of benefits and ownership of a particular resource, i.e. wildlife, ties into the strengths and weaknesses of the overall design and implementation of the program and what

implications these could have for enhancing sustainable resource use and local commitment.

In light of the fact that the Namibian approach has gone further in devolving rights to local communities, defined benefits in a wider context than many such initiatives in the past and has an innovative method of institution-building at the local level, an important general research question to be answered in this thesis is: *In what way can the Namibia approach provide an increased understanding of the principles of CBNRM?*

1.3. STRUCTURE OF THE THESIS

The thesis starts with this introductory chapter in which a broad overview is given of the subject at hand. The research questions and rationales for the research are explained and the methods for the research reviewed. The general approach is discussed and some of the major constraints and limitations of the research are explained.

In the second chapter, the literature pertaining to community-based approaches to conservation and resource management is reviewed. Previous approaches to resource and biodiversity conservation are reviewed and the roots and emergence of new paradigms explored. The central role of resource utilization and the economic components of biodiversity conservation are examined. These will also be discussed in the second chapter. The role of property rights in sustainable resource use is explored as well as the expanding literature on common property resources and their relevance to CBNRM.

The focus shifts in chapter three to a specific resource and continent, i.e. wildlife in Africa. Previous paradigms in African wildlife conservation are reviewed and discussed in terms of failures and inequalities. The discussion sheds light on the potential of the wildlife utilization and management to provide an economically viable land use option by generating meaningful benefits, which enable them to compete with other forms of land uses. Finally a number of approaches to CBNRM in Africa are reviewed briefly and some of their major principles, shortcomings and successes summarized.

In chapter four the focus is narrowed down to a case study in Namibia. The general background of Namibian wildlife conservation is provided and the context of the new policy formulations explained. The new emerging paradigms and policy changes are

explored and the potentials and obstacles for wildlife utilization are examined. Overall the potential of the new CBNRM program to generate benefits is assessed as well as the role these benefits are meant to have in accomplishing sustainable resource use and rural development.

The local level in the Kunene region of Namibia forms the focus in chapter five for consideration of a specific case of CBNRM. The background information about the area is given and the work of a local NGO in the region is reviewed. The field research carried out there is presented in light of previous discussions and frameworks and findings presented. Finally, conclusions are presented in the last chapter of the thesis.

1.4. METHODS

1.4.1. Focus of study and methodological context

For the purpose of this research qualitative social data were collected for analysis within a specific context, i.e. the roles of property rights, benefits and costs in CBNRM. The research involved an extensive review of the relevant literature as well as fieldwork in the Kunene region in northwestern Namibia from January to April 1999. The research was carried out in Namibia in consultation with an NGO working on implementing the CBNRM program in the field, *Integrated Rural Development and Nature Conservation* (IRDNC) as well as with the Directorate of Environmental Affairs within the Ministry of Environment and Tourism (MET) in Namibia. Liaisons were made with the Ministry during the design stages of the research, prior to arrival in Namibia. Contact with IRDNC, which was essential for doing community work on CBNRM, was made after arrival in Namibia.

In light of the time constraint and the proposed participatory approach of the field research, the method of study chosen was a combination of various participatory rural appraisals (PRA) techniques. These entail the use of various social science research methods, which aim to maximize the development of key social knowledge and enhance the cost-effectiveness of the research as well as ensuring the participation of local people (Furze et al. 1996). The aim was also for to act as a facilitator in stimulating local

discussion about the benefits and constraints of wildlife utilization, rather than just an extractor of information. The hope was that this would enable the community to benefit from the research process and gain some information (Chambers 1991).

It was recognized in the beginning that the choice of research methods would have to be flexible and take account of the local culture and circumstances, and to be flexible in developing details as the research evolved. Although the research design and questions were formed before going to Namibia, care was taken to consult with people involved in the CBNRM program in Namibia as well as community members about the appropriateness of the research design and context. A concern was that the data gathered should provide information useful to the Namibian CBNRM program, both for IRDNC as well as for the conservancy management committees implementing the program in their own communities. The data gathered in the two conservancies will be used as input into the ongoing monitoring and evaluation carried out by IRDNC of the CBNRM program in the Kunene region. Furthermore, the preliminary data have been channeled back to the two conservancies for their own use in the planning processes.

To make the best use of the time spent in Namibia, every avenue was used to obtain the data needed for analysis of the CBNRM program and of the role of property rights and benefits. This included fieldwork in two communities, interviews with NGO staff and policy-makers, attendance at workshops and planning meetings, and, an extensive review of relevant secondary data. It was expected that the synthesis of these complementary data sources would make up for time constraints and provide the researcher with the necessary understanding of both the CBNRM program in Namibia and the attitudes and views of people in the focus area.

The focus of the research did not change much throughout the study, but various suggestions and new ideas about data needs were incorporated into the research design during the research process. Because of limited time in the field, more attention was paid to the national context of the CBNRM program and the potential of the program to generate benefits at the local level. A list of questions that guided the interviews and data gathering during the research is included in Appendix I. This list was initially formulated during the research design process and later refined during the implementation phase in Namibia.

1.4.2. Subject and Site Selection

This study was initiated because of the researcher's interest in CBNRM activities in general rather than wildlife management issues per se. Namibia emerged as a choice for a study site through contacts Professor K. Scott Wood, at Dalhousie University, had within the Directorate of Environmental Affairs in Namibia. It was evident that Namibia was an ideal country in which to conduct such a study, given the recent changes in conservation legislation and a very progressive CBNRM program.

The Kunene region in Namibia was selected as a study site for several reasons. The CBNRM program in Kunene shows great potential and IRDNC has been working with communities there on conservation and rural development activities since the 1980's. Furthermore, the other main focus area of CBNRM, the Caprivi, was at the time experiencing some social and political unrest. Arrests were being made in the area and people were fleeing to neighboring countries. It was, therefore, deemed infeasible at the time to carry out this research in the Caprivi area.

The Kunene region is vast, with communities and villages scattered around a 70,000 km^2 area. Several communities are working towards establishing a conservancy and IRDNC is giving logistical support to six of them. The selection of the two conservancies for this research was done at the IRDNC's first quarterly planning meeting in January 1999. The researcher got a chance to present the research to the communities and to get some feedback from community members and IRDNC staff. The meeting also presented a chance to approach and seek approval of the participating communities, the Ehirovipuka conservancy and the Torra Conservancy. The choice of these communities was based on two criteria. First, both communities are relatively accessible in terms of distances between settlements and travel time. Second, these conservancies were in different stages of their conservancy formation. Torra is one of two proclaimed conservancies in Kunene and already has a number of income-generating initiatives. The Ehirovipuka conservancy, on the other hand, had just recently started working towards conservancy establishment. It was therefore believed that these two conservancies would provide some contrasts in terms of progress and views.

It should be noted here that this thesis does not provide a detailed picture of the social and political situation of the two study sites. This is mainly due to the fact that the

focus of this research is on specific factors related to the CBNRM approach, i.e. property rights in relations to costs and benefits. Thus, detailed issues related to program implementation in a specific site are not central. It was deemed necessary, however, to gain a broad overview of the functioning of the program as well as acquiring some knowledge and insights into people's perceptions of these issues at the local level.

1.4.3. Methods of data gathering

Several methods were used to gather data from various sources during the research process. By using complementary data sources, a triangulation of information is made possible thus maximizing the understanding of the social context and issues at hand (McCracken et al. 1988 quoted in Furze et al. 1996). The methods used in the research included: a review of key literature; a review of available secondary data; focus group interviews; surveys; key informant interviews and participant observations. These are discussed below. Each section presents a summary of the data gathered by using the particular technique.

- **Literature Review**

The relevant literature in the field was reviewed to establish the proper framework for analysis. This included the literature on CBC and CBNRM, property rights, common property resources, economics of biological resources and wildlife conservation in Africa. This review was partly conducted prior to the field research in Namibia, but completed during the write up of this research. A list of research questions was formulated before going to Namibia, based on the literature reviewed. However, during the field research phase it was also realized that various new literature items needed to be incorporated into the work based on the research findings and the Namibian CBNRM context.

- **Secondary data review**

While in Namibia, and during the write up, the research involved a review of published and unpublished data from Namibia. These include various relevant documents: policy-related documents; project proposals from donor agencies and NGOs; program evaluations; information sheets from various organizations; reports from

workshops and meetings; and various economic, geographic and ethnographic studies and data sets. A considerable amount of time was spent in Windhoek, the capital, gathering these data both from MET and from various government agencies and NGOs.

- **Semi-Structured Focus Group Interviews**

At the first study site in the villages in the Ehirovipuka Conservancy, two groups, one of men and the other of women, were interviewed with the help of two assistants/translators, a male and a female. The settings were informal: the assistants collected people from the village who gathered around us. Informal discussions were carried out about the benefits and costs of wildlife and the new CBNRM program. All responses were written down on sheets of paper, visible to all participants, and discussions generated on the different issues that arose. People were also asked to rank different costs and benefits related to wildlife and the CBNRM program.

Altogether the study was carried out in five villages in the Ehirovipuka conservancy, where group interviews were conducted. The choice of villages was based on a number of factors; e.g. distance from core area/village, wildlife numbers around the village as well as the number of occasions people had experienced damage from wildlife. For example, one of the villages had experienced frequent damage to its waterpoints from elephants and experienced livestock losses due to predator incursions. Another village had experienced little or no damage from wildlife and a third village was just beside the boundary the Etosha National Park.

Preceding the interviews, the researcher showed people pictures from his homeland (Iceland) and talked about the country, its culture and whatever people were interested in knowing. The hope was that this would function as an 'icebreaker', and a tool to introduce the researcher. It proved to be a good method to give participants the feeling of receiving as well as giving information. The research assistants had a good rapport with the community and the different villages, which greatly facilitated access to respondents. Furthermore, the female research assistant was especially instrumental in generating participation of women in the villages.

- **Quantitative Survey**

In Torra Conservancy, the second study area, a household survey was conducted. Although the use of surveys had not been included in the initial research design it was decided that it could serve as a valuable source of data. The survey was designed and planned in cooperation with a researcher from the Social Science Division at the University of Namibia who was already planning research in the same community. The community felt that it would be better if data needs would be combined and the research carried out as one. This provided, moreover, a good opportunity to liaise with an experienced researcher in Namibia and gain valuable insight from him.

Survey design and the questionnaire were jointly formed. The other research partner supervised the gathering of the household data and several community members were hired and trained as enumerators during the seven days of data gathering in the field. A random sample of households was taken based on social maps compiled by the Torra Conservancy Management Committee. The households were divided by settlements in the Conservancy and households selected from each settlement in proportion to the total number of households. Head of households were interviewed in the cases where they were present; otherwise other household members were consulted. Altogether 60 households were surveyed out of the approximately 120 households in the Torra Conservancy.

Distances in this part of Namibia are great and a 1-2 hour drive on rocky paths between households is not uncommon. It was therefore necessary to show some flexibility when it came to sampling methods. The aim was not to conduct extensive statistical analysis with the survey results but rather to analyze qualitatively the main trends visible in the summarization of frequencies.

- **Key Informants**

A number of key informants were interviewed during the research process. These included policy-makers, NGO staff, people from donor organizations, tour operators, community management committee members in the Torra and Ehirovipuka Conservancies, older people in the communities, and community game guards. The interviews were semi-structured. A set of guiding questions was used in the interviews

but the option to probe into unexpected lines of thinking was kept open. Furthermore, at different venues, such as at workshops and meetings where the CBNRM program was the topic, informal discussions were carried out with various people.

Altogether 16 key informants were interviewed at the policy/NGO level, and 10 people at the community level. The key informants were chosen based on purposive sampling, i.e. on the knowledge they were perceived to have and the data needed for the purpose of this research (Bernard 1995). In addition to that, a network, or snowball sampling was used, where informants suggested other people that might be helpful in giving relevant information.

- **Participant Observations**

The research entailed personal visits, observation and participation in two workshops organized by IRDNC and two IRDNC Quarterly Planning Meetings in the Kunene region. The topic of the first workshop was a proposal from a large tourism firm in South Africa that had been presented to the conservancies for developing tourist operations in their areas. Members from different conservancies in Namibia were present and the proposal was discussed in detail and a counter-proposal formed. One of the main purposes of this workshop was community capacity-building for dealing with proposals and negotiations with private tour operators, particularly relating to the distribution of benefits and management of tourism operations in their areas.

The second workshop was on the development of *Equitable Benefits Distribution Plans* for the Torra and Sesfontein Conservancies. The development of such a plan is one of the prerequisites to get a conservancy proclaimed. This workshop gave a very good insight into the local perceptions about the generation of benefits and their equitable distribution.

Four times a year IRDNC organizes a planning meeting at its base camp in Wereldsend in the Kunene region. These meetings bring together management committee members from all the communities with which IRDNC is working in the Kunene region that are trying to establish a conservancy. The meetings last for 3-4 days each time, and the communities outline their progress towards establishing a conservancy in the last annual quarter and present a workplan for the next three months. These meetings were an

excellent source of data and provided a good opportunity to partake in discussions with members from various conservancies on the possibilities and obstacles facing their communities in forming a conservancy.

Furthermore, the researcher attended a number of community meetings where the community management committees from the conservancies gave feedback to their communities and participated in game patrols and area explorations with community game guards. Also, several tourist camps in different conservancies were visited.

1.4.4. Data Analysis

This thesis makes use of a literature review about the CBNRM approach, property rights and wildlife conservation in Africa to establish the proper framework for analysis of the field data. Bernard (1995) points out that the analysis of qualitative data actually starts before one goes into field and continues throughout the research process. Ideas are formed and checked against observations, leading to modifications in the research design and focus. This proved to be the case for the present research. Data were analyzed during the research process to identify gaps in information as well as to explore interesting points and to develop new ideas on which to elaborate in later stage of the research.

The data in this thesis are analyzed in relation to a working hypothesis, namely that property rights and distribution of benefits and costs are of central importance to the functioning of CBNRM. This hypothesis has guided the overall design and implementation of the research. The aim, however, is not to test the working hypothesis statistically but rather to shed light on a set of research questions presented earlier in this chapter. The main working hypothesis embraces too many factors for the researcher to be able systematically to reject the null hypothesis. The aim is rather to deduce several more specific hypotheses from the data at hand within the parameters of the more comprehensive working hypothesis.

The analysis of the data in this thesis is first and foremost qualitative. The interviews and other data were transcribed during the research process. The analysis focuses on specific patterns within the data and the search for reason or context for the emerging patterns (Bernard 1995). Although the statistical program SPSS has been used to analyze data from the household survey, only basic statistical analyses were carried

out, such as frequencies, means and cross tabulations. The aim is not to explain, with statistical models or regression analysis, reasons for peoples' behavior but rather to shed some light on different aspects or patterns that emerge and are believed to influence how people view and use the specific resource.

Social reality is complex and variable and it was not the researcher's aim to gain a final understanding of the factors that motivate peoples' behavior in the CBNRM program in Namibia. As Furze et al. (1996) point out, it is impossible to reduce the complexity of human affairs to hard laws of cause and effect. They maintain that social understanding can be achieved at a level of 'optimal ignorance', which implies that our understanding has limitations that have to be kept in mind when using social science knowledge.

1.4.5. Ethical aspects

This research involved human participants at the policy and at the community levels. The use of written informed consent forms was not proposed in this research. After having consulted with people who had worked in this area, it was apparent that it would be culturally inappropriate to make people sign such forms due to the obligation people might assume such a signature to include. The fear was that by asking people to sign such a form, it might create distrust of the researcher, thereby jeopardizing the study results.

The participants were verbally briefed about who the researcher was, with whom he was working, what the project aims were, how it involved the community, and where the information collected would end up. In all cases where the researcher was in the role of an observer, or involved in-group activities, it was made clear to all present who he was and the nature of his role. Care was taken to ensure that no one was opposed to his presence. In the focus group interviews, participants could review the comments, which were transcribed on a large piece of paper, visible to the whole group.

Participants at the community level were assured of confidentiality since their names where not recorded. Most of the interviews at the community level were in the form of focus groups were people talked freely about their views with the researcher and with other community members. This information was not regarded as sensitive, since the talk was mostly about the wildlife resource and the potential benefits, costs and the

community development people anticipated. No names of key informants were recorded, only the general circumstances of the interview. All interviews and other forms of data will be kept in a secure place and will be destroyed by the researcher when the work has come to a conclusion.

At the policy level, most interviews were on the actual policy issues and NGO policies and work, not on personal matters regarding those interviewed. People were briefed about who the researcher was and his purpose. The individuals interviewed at this level were representing certain organizations and departments and the information given was not regarded as sensitive.

The researcher was very careful to design and implement the research process in a way that was culturally appropriate and sensitive to local concerns. To ensure this, various people were consulted, including community members and translators as the field research progressed. It is hoped that by keeping ethical issues in mind at all times, this has helped to ensure that the research process was culturally sensitive and that ethical issues were properly addressed at all stages.

1.4.6 Limitations of the research

This research had to deal with several limitations. Most important were language barriers, time limitations, remoteness and inaccessibility of study areas, high research costs, and the unfamiliar circumstances and reality of rural Africa.

The study area, Kunene, is one of the most remote areas in Namibia. It is about a seven-hour drive from the capital city and covers 70,000 km^2. An all-terrain vehicle (4X4) is needed for much of the travel within the area, since villages and settlements are scattered around a vast area. Due to these factors the time spent doing fieldwork turned out to be shorter than originally planned. Altogether six weeks were spent in the field and seven weeks in Windhoek where preparatory work, interviews and information collection were carried out. Furthermore, due to the short time in the field, the research proved to be less participatory than originally planned.

Language barriers were another limitation in this research. Although English is the official language in Namibia, the people in the rural areas speak a variety of local languages. Therefore the assistance of translators was needed. At meetings and

workshops the researcher relied on the help of NGO staff to translate from Afrikaans to English. This was efficient, since they were fluent in both languages and furthermore very familiar with the subject matter and circumstances. In the fieldwork in Ehirovipuka Conservancy, two individuals who acted as translators, assistants and guides were hired. They were young people involved in the CBNRM program, and the female assistant worked as a community activator and was, therefore, familiar with all the relevant issues. She spoke excellent English and had strong rapport with the community. It was difficult to estimate how much information was missed or distorted in translations, or if specific information such as any negative views on the CBNRM program systematically got lost during translation. However, after interviews the information was discussed, which provided the researcher with an opportunity to probe specific points that were unclear. A further potential limitation was that the female assistant was actually working for IRDNC on the CBNRM program, therefore raising the possibility that some responses might have been influenced by her position within the conservancy.

Another limitation in this research is related to the household survey. Due to factors beyond the researcher's control, it proved logistically impossible for the researcher to accompany the Namibian research partner when carrying out the household surveys in Torra Conservancy. Every other step of the process, i.e. the research design, planning and coding of the surveys, was carried out in cooperation. Despite this shortcoming it is believed that the information from the surveys provides valuable data for the purpose of this research.

The reality of doing research in rural Africa was very different from what the researcher had anticipated. Having done research in a Western context where research designs are neatly formed and carried out in circumstances one knows and can to some extent predict, an outsider implementing research in rural Africa in a short period of time is a different experience indeed. It can certainly be said at this point that the research was not as structured as originally planned. This raises again the crucial point about the need for flexibility, which is a key component when doing research in unfamiliar circumstances. Despite several shortcomings in conducting this research, it is believed that the work will generate interesting and useful information within the established framework. Finally, it proved to be a tremendous learning experience for the researcher

and it is hoped that some of the people who participated in the research process will in one way or another feel that they have benefited.

CHAPTER 2
COMMUNITY-BASED APPROACHES TO CONSERVATION: PARTICIPATION, RIGHTS, RESPONSIBILITIES AND BENEFITS A LITERATURE REVIEW

How can conservation within protected areas be enhanced, and how can sustainable resource use be encouraged outside protected areas? Those are two basic questions that have come to the forefront in the quest for conserving the world's biological diversity and in achieving sustainable development. In the developing countries where most of the world's biological diversity remains, there has been a shift in paradigms in nature conservation from a strict preservationist view towards a use and development oriented approach that is based on increasing local participation. Community-based natural resource management (CBNRM) is a model that has emerged and is believed by many to yield promising results in addressing sustainable resource use and social equity with the empowerment of rural people.

It is difficult to give a complete overview of the vast variety of existing literature on community-based and participatory approaches. The issues involved are many and complex, ranging from household-level livelihood strategies to the international demand for biodiversity conservation. For the purpose of this thesis the literature review will focus on the roots of emerging approaches and the shift towards responsible utilization as an important component of conservation efforts. Furthermore, the economics of conservation are reviewed and the role property rights play in sustainable resource use. Finally, the following central role of common property institutions in CBNRM approaches will be discussed.

2.1. CONSERVATION - THE PAST AND THE PRESENT

> *We didn't even know the park existed until the authorities started sending us to prison for hunting. That was when we found out we could not hunt where we used to hunt and that we were not allowed to hunt the wild animals that were killing our livestock. Why didn't anyone ask us what we thought? Then we might not have these problems.*
>
> (A local resident in Ghana, quoted in Njiforti and Tchamba 1993; 173)

2.1.1. Previous approaches to conservation

The establishment of protected areas has been a basic component in conserving the world's biological diversity since the beginning of this century (Furze et al. 1996). The roots of the protected area concept developed in the USA with the establishment of national parks at the end of the 19th century. After World War II, the number of national parks and protected areas around the world began to grow (Dixon and Sherman 1990). This model of protected areas builds a symbolic, and in some cases real fence around parks, and removes protected areas from their ecological and social context (Furze et al. 1996). This approach, often termed *fences and fines,* has required a militaristic defense strategy and has often worked to heighten conflicts with local people in and around protected areas (Wells et al. 1992). To a large extent this approach is based on Western conceptions of wilderness areas which are then transplanted to developing countries that face entirely different social and ecological contexts (Matzke and Nabane 1996). It has disregarded the rural poverty, increasing population pressures, and intimate relationship of local people to their land and resources.

Protected areas were in this manner treated as islands and their planning and management carried out in isolation from the surrounding region (Garatt 1984). The creation of people-less parks ignored the historical relationship between people and their habitat and the role people have traditionally played in maintaining biodiversity in any given area (McNeely 1993). It has been argued (Swanson and Barbier 1992, McNeely 1993) that in the developing world, almost the entire habitat has in the past been used by the indigenous communities for subsistence use. The traditional approaches to protected areas have thus worked to remove people from the resource they have in many cases depended on for survival. According to Murphree (1996) these approaches represented a from of 'ecological apartheid'.

The hardship that traditional approaches to protected areas have caused local people by excluding them from their resource base, and the concomitant conflicts have been identified as one of the main threats facing parks existence today (Wells et al. 1992, McNeely 1995). Creation of such biological islands of abundance, while poor rural people are on the margins of survival, creates incentives for local people to break the rules and abuse natural resources. Even if governments had more resources, enforcing

preservation goals would be difficult when people have a choice between breaking the rules and getting food, or obeying the rules and starving (Bromley 1994).

This prevalent top-down approach to protected areas and conservation planning has in the past two decades received increasing criticism. First, it is inequitable to ignore local peoples' needs. Secondly, it often fails to achieve its conservation objectives, and it ignores the potential of natural resources to contribute to local development. At the root of the problem has been the disregard of local people as meaningful partners in conservation. These approaches have been accused of being reductionist, élitist and supportive of the existing unequal power relationships in societies (Matzke and Nabane 1996). Moreover, it has been argued that in some places conservation activities have threatened to start a new wave of colonialism that denies indigenous rights in the name of nature conservation and wilderness values (Cordell 1993, Adams and McShane 1996).

It can be said that previous approaches have been rooted in the traditional Westernized dualism of humans and nature as separate entities (Descola and Pálsson 1996). The former preservationist approaches regarded humans as alien to nature, and nature conservation and human use as incompatible. In recent years there has been a move from such a view in social and ecological theories, towards a more integrated paradigm. These include the emergence of concepts such as an 'ecosystem approach' and 'socio-natural systems', of which humans are an integral part (Grima and Berkes 1989, Bennett 1993). Bennett (1993) argues for example, that in a socio-natural system, human and physical systems are treated as a whole, and the human factor in the environment is not an exotic force but rather the purpose and action of human beings in their social contexts. A fundamental prerequisite for the relevance of any concept such as an ecosystem is that it must include humans who are trying to survive and realize their goals in a human society and culture (Bennett 1993). The most basic argument for bringing a human dimension into conservation is therefore that humans are a part of the very ecosystem in need of protection.

2.1.2. Sustainable utilization as conservation

The term conservation has been used in various contexts in the environmental literature. For some it means strict preservation of natural wonders, while for others a

sustainable use of various resources (Adams 1987). Western and Wright (1994) point out that conservation originated in prehistory as a practice that satisfied human needs, not as an altruistic concern for animals and plants. Conservation is essentially a human response to changes in their environment and natural resources to secure continuing survival. Murphree (1996) argues that the contemporary Western understanding of conservation as a discrete set of concerns and actions is the product of urban interest groups, scholars and governments. Adams and McShane (1996) point out that this has essentially been a response to the rapid disappearance of wilderness in Europe and North America (Adams and McShane 1996). For the rural farmer in Africa, Murphree (1996) points out that 'conservation is not a discrete set of concerns, but an investment in the sustainable use of their resources, with the objective of maintaining or improving their livelihoods, i.e. development.' In this context, conservation can therefore not be regarded as an end in itself but means to an end, i.e. improved livelihoods.

Conservation is generally regarded as a critical element in sustainable development, i.e. sustaining the natural resource base. However, by definition sustainable development does not imply a no-use policy, but rather a *wise use* that contributes towards human development (WCED 1987, Serageldin and Steer 1995). In developing countries, the most important context for this thesis, the main concern is about the current level of human population growth, poverty and land pressure, and protecting biodiversity. The option of preserving all or most of the remaining habitats as 'nature reserves' is in many cases not feasible, given the social and economic pressure for increased economic development and poverty alleviation (McNeely 1988, Barbier 1992). Thus moving towards a definition of conservation as a use-centered policy with the aim of establishing the link between conservation and development has become a logical policy option.

The World Conservation Strategy (IUCN 1980) has been an influential document for almost two decades, and has essentially established the current definition for the term conservation. The Strategy defines conservation as 'the management of human use of the biosphere so that it yields the greatest sustainable benefits to present generations while maintaining its potential to meet the needs and aspirations of future generations' (IUCN 1980). Similarly, the IUCN's more recent strategy, *Caring for the World* (IUCN 1990) re-enforced the definition along that line. The critical distinction is, therefore, not

between 'use' and 'non-use' but between sustainable and unsustainable uses of diverse kinds, either direct material, indirect material, or nonmaterial uses in various forms (Byers 1996). Thus, as used in this thesis, conservation encompasses preservation, resource maintenance, sustainable utilization, restoration and enhancement of the natural environment (IUCN 1980, Goodland and Ledec 1988). A more-detailed definition of the term will depend on the context at hand; i.e. what levels of use the resource in question can sustain, if any. Conservation can therefore essentially be seen as sustainable resource management and utilization.

2.1.3. People, development and conservation

The World Conservation Strategy (IUCN 1980) proposes three major conservation goals: *to maintain essential ecological processes and systems. to preserve genetic diversity, and to ensure sustainable utilization of species and ecosystems.* Conservation is thus expected to make important contributions to social and economic development by providing an alternative approach that stresses the long-term benefits to society rather than just short-term economic gains (IUCN 1980). The notion held among many conservationists in the past, that development was the enemy has largely been rejected. While the previous message was that conservation could succeed only by holding back the clock, the key issues for successful conservation are now understanding conservation and development as two parts of a single process. Conservation cannot ignore the needs of human beings, while development that eats up natural capital is unsustainable (World Bank 1992, Barbier 1992, Adams and McShane 1996).

At the 1984 World Congress on National Parks in Bali the idea integrated conservation was further recognized (McNeely 1984, Larson et al. 1997, Brandon and Wells 1992). One conclusion was that national parks needed to be supplemented by a wide variety of protected areas that could help meet the social and economic needs of modern human society. Still the focus was largely on protected areas and areas buffering them. Ideas also emerged about ways to establish limited uses of resources for local people and how to allow them to continue traditional uses on a sustainable basis and thereby share in the benefits received from the parks. At this point, the move from a preservation perspective to a more multiple-use approach to conservation began to

emerge (Western and Wright 1994). This included the introduction of new categories of protected areas and the emergence of the concept of 'biosphere reserves' allowing for multiple uses (Batisse 1982).

Because of the conflicts previous management approaches had evoked, and the social and political unrest leading to insecurity of governments to manage protected areas in many developing countries, many believed that the best hope was to turn the rural population that lived around protected areas into partners in conservation (see further McNeely 1984, Lusigi 1984). A further realization of the importance of this partnership grew out of a greater understanding of the relationship between poverty and environmental degradation (Larson et al. 1998). Thus the importance of conservation to economic development, both in terms of improving human conditions and to secure the basis for sustainable resource use by reducing poverty, evoked new approaches to conservation in the early 1980's. These new approaches sought the cooperation of protected-area neighbors by making them a source of economic and developmental benefits to surrounding communities (Murphree 1994). The necessity to include local people in protected-areas planning and benefits-sharing from conservation and resource management was becoming increasingly recognized.

2.2. SHIFTING PARADIGMS - TOWARDS A HUMAN-CENTERED APPROACH

> *Less than a decade ago, the notion that a conservation organization would be involved in so-called "quality of life" issues - better health care, increased child survival, greater opportunities for women, and assurance of resource ownership - would have been inconceivable. Today, conservationists see that these are the preconditions for stabilizing the population, which is necessary to diminish competition over deteriorating resources.*
>
> (Adams and McShane 1996: 105)

2.2.1. The concept of participation in rural development and conservation projects

The rationales for local participation have become increasingly recognized in recent years in rural development projects. The arguments for a local approach in protected area management and natural resource conservation have their roots in the

evolution of participatory approaches (Little 1994). This builds on four main rationales (Chambers 1991, Oakley 1991, Furze et al.1996). First, experience has shown that the integration of local people into decision-making in conservation management and planning decreases conflicts. Second, to ignore the local level is to ignore a source of valuable knowledge that has accumulated in the past. Third, individuals have an ethical right to determine their own future or at least to participate in a meaningful way in the processes and decisions that affect them. Fourth, local participation in conservation or user-participation in resource management in general is regarded as having the potential to increase efficiency, equity and effectiveness (Hanna 1995).

In participatory approaches to rural development and conservation, participation has rarely been seen as a simple unitary concept, but rather a continuum from 'passive' to 'active.' Participation can span from passive forms such as local people providing outsiders with information to assist in the design of projects, to increasingly more active forms such as co-management of external community-initiated projects (Byers 1996, Oakley 1991). Some have viewed local participation as means to achieve conservation or specific development objectives while others have viewed local participation more as a part of social empowerment, enabling people to take control of their own resource and development, i.e. participation as an end in itself (Little 1994).

West and Brechin (1992) point out that many projects have confused participation with public relations, i.e. rather than serving as a vehicle for local participation and power sharing, these projects have tended to gain support for government or externally designed plans. They concluded that real participation was best achieved by confidence building and conflict resolution measures that entail a genuine and realistic share of decision-making power. Participation by definition must therefore go beyond consultation and token inputs, to an actual shift in power relations.

Local participation has been described by Cernea (1985; 10, quoted in Wells and Brandon 1992) as: 'empowering people to mobilize their own capacities, be social actors rather than passive subjects, manage the resources, make decisions, and control activities that affect their lives.' What could be termed meaningful participation should therefore go beyond involving local people as project beneficiaries or as paid employees of

protected areas, to being actual managers and decision-makers in their own matters and resource use.

Many previous initiatives to involve local people have failed in Murphree's (1994) opinion, because participation turns out to mean co-option of local élites and leadership, and decentralization turns out to mean addition of another layer to an already obstructive bureaucracy. The reason for this is that participation usually is undertaken in ways that segregate responsibility from rights or proprietorship, i.e. people get the responsibilities to conserve the resource without any rights in decision-making and its allocation. With regards to natural resource management, Murphree (1994) argues that what is required to make the concept of participation viable is proprietorship, which means sanctioned use rights, including the rights of access and exclusion, and the right to benefit fully from the use and management.

The literature generally agrees that for participation to be regarded as meaningful, it must involve a significant shift in power relations in the management of the resource. Local communities must become more active rather then passive in the process and increase their ability to make decisions and implement them. People should be involved at all stages in the project cycle, i.e. the planning as well as the implementation processes (Kiss 1990, Little 1994). If the conservation efforts are to build on the potential to link conservation and development, they must build on empowering people to care for and manage their own resources.

The search for participation and the exact meaning of CBNRM and CBC are complicated further by ambiguity surrounding the concept of community. An exact definition of community has eluded most program planners, but what has been clear is that community is not a homogenous entity. Moreover, a fundamental question is who in the community is participating?

The members of any community doubtless have conflicting interests and different aims (Kiss 1990, Murphree 1994). This has presented challenges for natural resource and conservation managers. Behaviours that benefit some people in the community may hurt other individuals, the community as a whole or future generations of community members (Byers 1996). It is now widely assumed that conflict is inherent in most types of resource use and conservation, especially when stakes are high and when winners and

losers are clearly present. Different interest groups in the community will have different stakes in the resource, e.g. men and women, rich and poor. The tendency to disregard the role of women in resource management projects is well documented and has often led to grave failures (Little 1994). Without seeking to answer the question of what constitutes a community in participatory approaches, it is important to note that projects should aim to identify all the stakeholders and their different use patterns and incorporate the differences into the design and participatory process of the project (Little 1994).

2.2.2. Integrated Development and Conservation Projects

New approaches to development and conservation that have been implemented in various contexts in different parts of the world over the last decade are commonly termed *Integrated Conservation and Development Projects* (ICDPs). The essence of ICDPs is an attempt to address the needs of communities nearby protected areas with local participation and by linking conservation with development (Wells and Brandon 1992). The focus was at first mostly on parks and protected areas and the adjacent land, with the aim to stabilize land use and improve people's living standards, thus reducing the pressures protected on areas (Wells and Brandon 1992). Most projects aiming at reconciling people and parks began with a desire to encourage local communities to respect and support protected areas or species under protection. During the first generations of ICDPs in the early 1980's, most of the projects treated people as passive beneficiaries rather than active collaborators, often stressing short-term gains to generate benefits and credibility (Wells and Brandon 1992). As Larson et al. (1998) point out, experience has shown that financial compensations do not necessarily change peoples' attitudes and behaviors. Such immediate gains are not a substitute for the time-consuming and intensive process of involving local communities in project design and implementation (Wells and Brandon 1992).

A second generation of ICDPs emerged in the 1990's, focusing more on land outside protected areas (Larson et al. 1998). Drawing on the shortcomings of previous projects, these new-generation ICDPs stressed the role of local people as resource managers, and emphasized their rights and responsibilities for resource management, including sustainable use. Instead of seeing people as a problem to be overcome, these

new approaches started to see people and their social and cultural institutions as the solution to the problem (Larson et al. 1998).

Many commentators put all ICDPs in one category, including CBC projects, natural resource management programs and rural development projects specific to national parks. Murphree (1994) pointed out that few of the ICDPs have been proprietary, i.e. seeking to develop proprietorship of the protected areas for local communities or to create proprietary units on the buffer zones. A fundamental difference between projects aimed at reconciling people and park relations on the one hand, and CBC and CBNRM on the other, is the attempt to change property rights regimes, and devolve ownership and management rights to communities.

Attempts of integrating conservation and rural development represent a vital change in the approach to conservation. They offer means to rectify the conflicts that have arisen in previous years by improving social equity as a result of a better distribution of benefits from the resource at hand. More importantly they see the role of rural areas as essential in approaching and achieving biodiversity conservation. This further stresses the need for involving local people. The problems these projects are attempting to address are difficult, diverse and variable, dealing with complex political and ecological contexts (Wells and Brandon 1992). Those approaches are regarded by most development and conservation theorists and practitioners to be essential to the conservation of biodiversity. Thus to achieve sustainable development, they must be reinforced simply because there are few other alternatives (Wells and Brandon 1992, McNeely 1993, Larson et al. 1998).

2.2.3. The importance of rural areas in conservation

Western and Wright (1994) point out that the shift in conservation approaches recognized the fact that the fate of most of the earth's biological diversity lay in the hands of poor people in developing countries. Even if the number and extent of protected areas expands, they would be unlikely to alleviate biodiversity concerns since most biodiversity lies beyond parks. Conservation organizations and agencies have therefore increasingly sought to work outside the boundaries of national parks in adjacent buffer zones, communally managed land, indigenous territories and coastal zones (Larson et al. 1998). Not only does the conservation of natural resources depend on the people inhabiting these

areas, but peoples' ultimate well-being and potentials for secure livelihoods depends on the conservation of those resources. The idea of extending protected areas over vast areas of rural land inhabited by millions of people is not realizable in most developing countries given the population pressure, existing private land tenure, and the need for development (McNeely 1988). The means to develop these areas must be integrated with the resources upon which the potential development depends.

Western and Wright (1994) maintain that community-based conservation efforts open up the rural areas of the world often written off as hopeless for conservation. If these efforts succeed, they argue that biological losses will be minimized and protected areas will become less and less important. While that might be true, others have pointed out that protected areas will certainly continue to be of value to biodiversity conservation (Murphree 1994), in particular when combined with participatory approaches to park management and an extended concept of multiple use and access for local people. Furthermore, where strict preservation is needed, the protected area model with heavy enforcement might possibly yield the best results. This model will, however, not suffice alone and only a broad-scale integrated conservation strategy that takes account of peoples' needs will come close to reaching the desired goals of conservation (Larson et al. 1998)

2.2.4. Community-based natural resource management

In essence, CBNRM is about resource conservation, rural development, and rural empowerment. However, the different definitions of both community and conservation make it difficult to pin down its exact meaning (Western and Wright 1994). Most important it is not a specific model for which a blueprint exists; rather, it is a set of design principles and an underlying philosophy. The conservation is focused on sustainable resource utilization. The development part is not geared towards increase in national GDP and large infrastructures, but rather a qualitative improvement in peoples' livelihoods, otherwise on the margin of survival, and empowerment in the sense of enhancing people's sense of control over their own lives and livelihoods (Little 1994).

The views embedded in CBNRM are in line with contemporary thinking on the link between development and the environment in sustainable development as including

environmental, social and ecological components (Munasinghe and McNeely 1994, Serageldin and Steer 1995, ICED 1987), and increasing local participation in sustainable development as called for in recent conventions on the environment and development e.g. the Rio Declaration (UNCED 1992).

CBNRM implies a shift in the locus of management decisions from the top to the bottom, i.e. to local communities' changes in property right regimes, and changes in the distribution of benefits from the resource. The emphasis of management, benefits, rights and responsibilities has moved from the top to the bottom, from the center to the periphery, from the élite to the poor, and from the urban to the rural (Strum 1994, Western and Wright 1994). In essence, this is in line with the changing approaches in rural development where the importance of a more human-centered development or "putting the last first" has become increasingly better recognized (Chambers 1983, 1991, Oakley 1991).

The basic functional assumption behind CBNRM is simple enough but fundamental: individuals will take care of those things in which they have a long-term sustained interest. While traditional approaches to biological conservation - national parks, preserves and other forms of protected areas - have in the past relied to a large extent on compulsory elements, i.e. restraining certain behaviors, the essence of CBNRM is to replace compulsion with a mixture of facilitative and inducing approaches (Bromley 1994). Facilitative policies build on existing conservation tendencies of individuals living among valuable biological resources and inducing approaches attempting to realign incentives so that individuals and groups will be more inclined to engage in conservation activities (Bromley 1994). The incentives influencing individual resource-use behavior are changed by assigning rights and duties to local communities assuming that they will behave in certain ways with respect to a particular biological resource. The rights are the expectation that sustainable resource use will be rewarded in some way and the duties or responsibilities come in terms of the obligations that local groups agree to undertake in order to reap the benefits of biological conservation (Bromley 1994). A key element of any community-based approach is therefore a shift in power in terms of resource rights, and the amalgamation of resource rights and responsibilities.

2.3. THE ECONOMICS OF CONSERVATION

> *However important these diverse resources are intrinsically, they are also important because we - the human species - use them. And, whether we welcome or deplore the fact, it is the latter value that will be the key to their continuing survival in the near term... For all those who appreciate and enjoy the wilds, this is a very important lesson to learn.*
>
> (Swanson 1992; 1)

A more thorough understanding of the basic economic components of conservation has provided further realization of the inefficiencies as well and inequalities of previous conservation approaches, as well as bringing to light the importance of responsible utilization as a means of conservation.

2.3.1. The economic problem

By maintaining that biological resources have important economic values, one is not implying that a direct market price or monetary value can or should be associated with all resources and ecological services. It merely serves to signify that any resource use, including protected areas, creates a stream of benefits, both for the global community and potentially for the local people, which should be weighed or considered somehow. McNeely (1988) argues that those interested in an effective management of biological resources cannot avoid addressing the issues of economic value, even when realizing the ethical limitations of these approaches. The economic problem here is twofold: first, to realize that these resources have a value, and second to realign the benefits of resource conservation with the needs of the local communities to establish the proper incentive structures (Bromley 1994).

When biological resources are not given an economic value, the risk is that they will be treated as having no price and be used up, not conserved. Furthermore, when it comes to competing land-uses, it is important to realize that a resource, such as a rainforest or wildlife, has economic value other than direct use value. This is particularily important when it comes to making decisions on different uses for the resource, i.e. determining about competing land uses, for example whether to conserve a tropical rainforest or to clear it.

Panayotou (1993) points out that people in the Western world are the main consumers of biological conservation. This is through scientific and recreational tourism and medical research and advancement and the enjoyment of environmental amenities, including the value of biodiversity for its own sake. However, when considering the level of livelihoods in developing countries, the main benefits for local people there stem from the potential to convert biological resources into direct economic benefits such as the harvesting of non-timber goods, employment, tour guides, access fees for scientists and tourists, and secure water supply from watershed protection (Panayotou 1993). Thus, the interests of Westerners searching for biodiversity conservation and poor rural people searching for livelihoods may not always be the same. Bromley (1994) points out that people in the West are often able to enjoy the benefits of biodiversity conservation at scant costs, while restricting the choice domain of poor individuals in the developing countries (Bromley 1994; 429).

2.3.2. The value of biological resources

Some of the benefits from natural resources are the results of direct or indirect resource use and can be valued according to market prices and other economic valuation methods (see e.g. Dixon and Sherman 1990). Some of the most important benefits from biodiversity and protected areas, however, are hard to measure in monetary terms and accrue to society at large. Such benefits include the various ecological functions protected areas maintain and are in fact the primary justification for protected areas. In figure 2.1 the variety of potential benefits from biological resources is summarized.

Direct value	Indirect value	Option value	Existence value
• Sustainably harvested products, e.g. meat, timber, fish, plant etc. • Recreation, e.g. tourism • Genetic Material • Human Habitat • Other services, water transport, supply	• Ecological functions • Protection functions/roles • Waste assimilation • Microclimatic functions • Carbon Store	• Future uses, as in the first two columns.	• Biodiversity • Cultural heritage

Figure 2.1. The total potential value of biological resources. (Source: Barbier 1992).

Any given resource can potentially yield a variety of benefits. Moreover, there exists a wide range of sustainable management options that maintain natural areas broadly in their natural state while allowing for a variety of human uses. These management regimes can, according to Barbier (1992), include such activities as commercial wildlife ranching and harvesting, non-timber forest-products extraction, nature tourism and various types of recreation.

Barbier and Swanson (1992) argue that it is extremely important to integrate these sources of value into the economic process, rather than keeping them out of the equation. That is, the means by which incentives for the conservation of biodiversity can be implemented; is by objectifying their value that will ensure biodiversity survival in the long run. Swanson (1992) argues that the role of utilization is to provide compensation for conserving biodiversity to the developing countries, and at a more local level, to provide compensation for the communities that bear the cost of conservation. Conservation policy should therefore focus on solving the shortcomings of resource utilization policy rather than reject it altogether.

2.3.3. Distribution of costs and benefits

As well as creating a stream of benefits, the establishment and management of resource regimes and conservation also includes costs. The costs are threefold: direct, indirect and opportunity. Direct costs are directly related to management of the resource, and include enforcing and monitoring regulations and coordinating users (Hanna and Munasinghe 1995). Indirect costs refer to adverse impacts caused by conservation of a resource. These can for example include damage to property or people from wildlife. Opportunity costs represent the loss of potential benefits associated with using land or resources in a specific way rather than putting them to another use, e.g. protecting an area rather than harvesting its resources (Dixon and Sherman; 1990).

The inequitable distribution of benefits and costs associated with biological conservation has been one of the factors triggering the move to involve local people in conservation initiatives, and for creating and sharing economic benefits from the resource use. Many of the benefits of protecting a resource or wildlife are not restricted to the local level, but occur at the national and global level. However, a large share of the costs, i.e.

the indirect costs and opportunity costs, fall on local people. A protected area for example represents benefits foregone in terms of resource uses, that is, an opportunity cost. Furthermore, damage from wildlife to crops and livestock often occur to people living adjacent protected areas, thus resulting in indirect costs. This analysis points to the inequitable situation local people can find themselves in. The costs of conserving protected areas falls on them, while the benefits accrue to society as a whole at the national and global level. Local rural people are furthermore often among the poorest and the most marginalized in society, with few alternatives for their livelihoods. If they overexploit the resource it is rarely because it is their intention *per se*, but because they desperately need food today, which weighs a lot more in their cost-benefit trade-off than the future value of genetic resources (Byers 1996).

A further consideration of the benefits has revealed that there are many direct benefits from conservation such as those related to tourism and potentially sustainable resource harvesting. These could be directed toward the local level but often accrue to external actors, such as foreign tourist operators. Depending on which level of protection is deemed necessary for the particular situation, the resource can be managed to meet different objectives, ranging from strict preservation of natural areas to sustainable provisions of timber, wildlife, water or recreational uses (Dixon and Sherman 1990). If a certain level of activities would not damage the resource, banning the activities altogether will result in forgone benefits gained from the limited use, which can also be regarded as costs for the local residents (Dixon and Sherman 1990).

In areas that do not support any direct use, but are protected for their outstanding biodiversity or important ecosystem components, this represents benefits to the global community as a whole, since biodiversity is being protected as are other globally important ecological processes, such as carbon sinks (Ledec and Goodland 1988; 94). This suggests that in such cases the developed countries should compensate developing countries. Such mechanisms involve transfers of funds in forms of development aid and nature-swaps (see further McNeely 1988 and Dixon and Sherman 1990). Barbier (1992b) argues that there is a very important role for the conservation-minded population in the developed world. He maintains that the wildlands of developing countries cannot be maintained in their present conditions without substantial transfers of funds on a

continuing basis. Presently, many donor organizations and international conservation organizations have begun to finance integrated rural and development projects which in one way represents an important recognition of this fact.

Thus, efforts towards integrating local needs and shifting the flow of benefits toward the local level work towards balancing the inequitable sharing of costs and benefits of protected areas and resource conservation. That furthermore establishes a fundamental principle in resource management, i.e. that those that bear the costs should reap the benefits (McNeely 1988, Ostrom 1990, Larson et al. 1998).

2.3.4. Benefits from resource utilization as an element of CBNRM

The CBNRM approaches and other integrated conservation and development projects have had as their major aim to rectify the inequities in previous cost and benefit distribution. This involves transferring an increased share of benefits to local communities as well as some management responsibilities. Benefits can take many forms; among them are cash payments, social services, control of marketing, employment creation, and incomes sharing. Strum (1994) argues that CBC projects to date have provided two main lessons about economic benefits. The first is that to be effective benefits need not be large, at least not by the standards of developed countries. The second is no matter how great the necessity for long-term planning, communities need to see acceptable short-term benefits in the interim if CBC is to succeed.

The benefits received by the local people must be clearly perceived as being generated from the conservation in order to create the necessary link between benefits and conservation (Kiss 1990, Furze et al. 1996). Thus the distribution of benefits in the community is of central importance when it comes to establishing that link. In many participatory initiatives in the past, benefits have been distributed in such a manner that has failed to make this critical link. Building health care centers or new schools in communities as forms of compensation has not necessarily been seen by local people as a direct result of resource conservation. If the link between benefits and conservation is not established, sustainable use of the resource is not ensured (Kiss1990).

The reasoning above suggests that economic incentives or compensations are of fundamental importance, but as the experience of many participatory projects has

revealed, financial incentives alone do not change people's attitudes (Larson et al. 1998). They do, however, form an essential part of any such approach, but need to be accompanied by a more holistic approach, i.e. devolution of property rights and management responsibilities, before people will actually link the benefits to the sustainable management of the resource.

2.4. PROPERTY RIGHTS REGIMES AND SUSTAINABLE RESOURCE MANAGEMENT

> *Behaviors, informed and driven by interests are mediated through various property regimes that entail prospects of perceived gains and losses for various agents in the system.*
>
> (Bromley 1994; 434)

2.4.1. Property rights - a basic definition

The role of property rights in resource management is the conceptional foundation upon which approaches to CBC and CBNRM rest. The role has come particularly to the forefront in recent years in the design of strategies for sustainable resource. Property rights theorists argue that "property rights are a precondition for efficient use, trade, investment, conservation and management of resources" (Panayotou 1993).

In essence, property-rights regimes consist of the rights and responsibilities in the use of natural resources, and a set of operating procedures, or the rules under which those rights and duties are exercised (Hanna and Munashinghe 1995, Bromley 1991). Tietenberg (1996) refers to property rights as a bundle of entitlements defining the owner's rights, priviledges and limitations for the use of the resource. The fundamental argument in property rights theory is simple enough in its basic form. By defining property right regimes and assigning well-defined rights and responsibilities to a specific group of people or individuals, they are given a robust and durable interest in the conservation of natural resources (Munasinghe 1995, Panayotou 1993). Poorly defined, or non-existent, property rights, however, are a form of market failure that leads to distortions in the signals people receive regarding its use, i.e. in the form of perceived costs and benefits and a shortening of time horizons that encourages overexploitation of

the resource (Barbier 1992, Panayotou 1993). Insecurity of land ownership has been identified by Panayotou (1993) as the single most-severe policy failure in developing countries.

2.4.2. Property rights and resource users' behavior

Property rights are instrumental in defining the interaction of people with their environment (Hanna and Munasinghe 1995), as well as defining social relationships between people. Those with tenurial rights have a certain social status regarding natural resources in comparison with those without tenurial rights to those resources, i.e. owners have a right to exclude non-owners (Grima and Berkes 1989, Lynch and Alcorn 1994). Bromley (1994) defines property rights as structures of entitlements, including a constellation of incentives and sanctions. The entitlement structures are the resource management regimes, and the incentives and sanctions that they include constitute the working rules of the regimes. The working rules define the domains of choice for people in the search for sustainable management of biological resources (Bromley 1994). Under different kinds of property right regimes, people face different kinds of incentives that motivate particular kinds of behavior. Byers (1996) maintains that the behavior of individuals and social groups forms the interface between ecological and social systems and property right regimes define the incentives for this behavior.

Ostrom (1990) suggests that the individual choice is influenced by four main factors: expected benefits, expected costs, the discount rate of the individual, and social factors. In any decision-making regarding resource use, individuals are perceived as rationally weighing expected costs and benefits and the potential trade-off in a given cultural context (Bennet 1993). Using this explanatory concept of rational action, one predicts that individuals will choose those strategies whose expected benefits will exceed expected costs (Ostrom 1990, Bennet 1992). The incentives embedded in any property rights regime influence how individuals perceive benefits and costs, discount future benefits and costs, and ultimately make decisions and form strategies regarding their behavior in resource use.

The underlying tenet is that rational human beings face disincentives to make long-term improvements and take short-term losses in order to manage their local

resource base sustainably when they lack assurance that they and their successors will continue to profit from the investment. The argument is that only well-defined property rights can provide such an assurance (Lynch and Alcorn 1994, Titenberg 1996). With no long-term security, people maximize their benefits by using as much as they can. The discount rate is high, therefore, since the choice is potentially between realizing benefits today, or not benefiting at all. With their long-term interests being secure, they have a further incentive to utilize the resource sustainably, thereby reaping benefits in the long run. In essence, having property rights and security lowers the discount rate of the individual and encourages a willingness to trade off present benefits for future gains.

2.4.3. Different types of property rights regimes

Property rights regimes differ by the nature of ownership, the rights and duties of owners, the rules of use and the locus of control.

Table 2.1. Different kinds of property right regimes. (Source: Hanna and Munasinghe 1995).

Regime Type	Owner	Owner Rights	Owner Duties
Private Property	Individual	socially acceptable uses, control of access	avoidance of socially unacceptable uses.
Common Property	Collective	exclusion of non-owners	maintenance, constrain rate of use
State Property	Citizens	determine rules	maintain social objectives
Open Access	None	capture	none

Hanna and Munasinghe (1995) maintain that present theories underscore the idea that sustainable resource use is not dependent on any specific kind of property right regime, rather that such regimes must be well designed and reflect the social and ecological context at each time and place. Many observers argue, furthermore, that neither the state nor the market is uniformly successful in enabling individuals to sustain long-term productive use of natural resource systems. Many communities have in fact relied on institutions resembling neither the state nor the market to govern some resource systems with a degree of success over long period of time (Bromley and Cernea 1989, Ostrom 1990).

The three kinds of actual property rights - public, private and common - all involve a set of defined proprietors given rights and duties in relation to a specific

resource. However, when people are faced with an open-access situation, there are no rules governing the resource use and no one carries the responsibility; in effect, there is no-property (res nullius), i.e. "everybody's access is nobody's property" (Bromley and Cernea 1989). Panayotou (1993) points out that under open access there is no future, and the resource is transformed into private property through prompt capture and use (Panayotou 1993). Under open access the only incentive for individual behavior is to use as much as one can as fast as one can. Essentially it is the same as individuals using an infinite discount rate. Open access should not be confused, therefore, with common property where there are well-defined groups of users and clear sets of rules.

One of the major arguments for the increased importance of CBNRM, and local participation in conservation, is the inability of many governments in developing countries to enforce the established public property regimes upon which the conservation efforts such as protected areas rest (Murphree 1994, Lynch and Alcorn 1994, Bromley 1994). Lynch and Alcorn (1994) argue that conservation failures under strong public tenure are the results of factors such as government's tendency to support economic development, its lack of sensitivity to socioeconomic needs and conservation interests, and its lack of resources to monitor resource conditions and enforce rules. In effect, such unenforced state regimes become open-access systems. Furthermore, when states have appropriated what used to be common property systems, such systems have often broken down, and essentially been turned into open-access regimes (Bromley and Cernea 1989). Thus, re-establishing previous common property regimes presents a hope for reviving workable management regimes and creating the concomitant incentives for sustainable resource use that people used to have. In many cases they can build on existing or dormant management institutions.

2.4.4. Fundamental principles

Property right theories suggest that no one set of property right regimes will solve all conservation problems and lead to sustainable development. However, any property rights regime must reflect certain basic principles to achieve sustainable development. At the most basic level, these regimes must perform certain functions such as limiting use, coordinating users, and responding to changing environmental conditions (Hanna et al.

1995). Panayotou (1993) points out that property rights must be well defined, exclusive, secure, enforceable, indefinite and transferable. Only when those basic principles are met can it be said that property rights are well defined. Tietenberg (1996) points out that an effective property right structure has four main characteristics.

UNIVERSALITY	All resources are privately owned, and all entitlements completely specified.
EXCLUSIVITY	All benefits and costs accrued as result of owning and using the resources should accrue to the owner, and only to the owner, either directly or indirectly by sale to others.
TRANSFERABILITY	All property rights should be transferable from one owner to another in a voluntary exchange.
ENFORCEABILITY	Property rights should be secure from involuntary seizure or encroachment by others.

Figure 2.2. Four main characteristics of property right structures. (Source Tietenberg 1996).

Finally, an important element of the design of property right regimes is that they be congruent with societal objectives for economic performance, equity, and ecological maintenance (Hanna et al. 1995). In a sense, the design of property rights will reflect various societal values such as equity, reduction of poverty, and environmental protection (Acheson and McCay 1987). This implies that each country or region will define the system of property rights that will best serve it to reach these goals. Eventually the match between a property-rights regime and the contextual characteristics of the affected humans and ecosystems will determine its success in terms of sustainability (Hanna and Munashinghe 1995).

2.4.5. Property rights and local participation

Some authors maintain that all participatory approaches to resource management are in effect community-based conservation. Western and Wright (1994) maintain that CBC includes, at one extreme, buffer-zone protection of parks and reserves and, at the other, natural resource use and biodiversity conservation in rural areas. In the broadest sense then, CBC can be seen to include natural resource or biodiversity protection by, for and with the local community (Western and Wright 1994).

However, there is not a unity of opinion about such a broad definition. Many theorists see approaches that primarily involve local people as beneficiaries as fundamentally different from approaches that devolve proprietary rights to local communities both with the responsibilities as well as defined rights to the resource (Little 1994, Murphree 1994, Lynch and Alcorn 1994, Jones 1997). Murphree (1994) maintains

that if the objective is community-based conservation, proprietorship in some significant form must be in place or projected to the community itself. In its absence, other forms of community involvement, or participation must be understood for what they are; co-optive, cooperative and collaborative arrangements. Lynch and Alcorn (1994) furthermore point out that the term "community-based" implies that local communities are making management decisions. For that to happen, communities must have or gain tenurial security in some form, either by themselves or as members of decision-making boards that include other stakeholders. This implies that the design and devolution of rights of tenure to local communities is a fundamental prerequisite for an approach to be termed community-based.

The fundamental argument of CBNRM advocates is that when local communities are legally empowered to control the utilization of the natural resource to which they have access, and when they secure direct personal benefits from this empowerment, a culture of genuine proprietary interests in the environment will emerge (Murphree 1996). Thus, proprietary rights, along with the rights to derive benefits from the resource, are the underlying factors upon which CBNRM approaches rest.

2.4.6. Property rights and economic and social benefits

With the shift in property rights towards local communities, there follows a shift in the flow of benefits from the resource, since property rights that involve the proprietor to make decisions about the use, flow and distribution of benefits from the resource (Western 1994). The role of economic benefits as an incentive in CBNRM is well recognized (Little 1994). In essence, community-based approaches are striving to shift the flow of benefits toward the local communities. A major lesson from CBNRM approaches has been that short-term economic benefits are often essential to establish credentials for the project (Strum 1994). However, another major lesson is that financial benefits alone will not change people's behavior towards the resource (Larson et al. 1997).

The importance of social benefits has been stressed in CBNRM approaches. These can include such cognitive factors as a sense of ownership of the resource and the management responsibility, empowerment to take charge of one's own development

(Little 1994, Rihoy 1995, Ashley 1998). Furthermore, in all CBNRM approaches, skill development and capacity building are essential factors. Local communities must acquire skills in resource management, organizational skills and business skills among others. In the past, local management institutions have become weakened or non-existent (Kiss 1990). Thus re-building the institutional capacity is an essential part of devolving rights for the management of resources.

Although it has become evident that financial or tangible benefits are an essential part of the CBNRM approach, the importance of intangible benefits as a fundamental part of the approach has been stressed in many cases, e.g. in Namibia (Ashley 1998). The belief is that the social empowerment stemming from the devolution of property rights to local communities can go a long way in reestablishing a sense of ownership and enhance people's conservation ethic towards a given resource.

2.5. COMMON PROPERTY RESOURCES AND CBNRM

The theoretical underpinnings of CBNRM lie in the recent evolution of theories on common property resources. While previous property right theorists maintained that private property or state property were the only ways towards sustainable resource management, there has been an increasing recognition of the role played by common property institutions (McCay and Acheson 1987, Berkes 1989, Ostrom 1990). There has been an increasing recognition that native and rural peoples have developed systems that restrict access to and use of marine and terrestrial resources. This has led to renewed interest in the use of these traditional systems as the framework for ecologically sound economic development and socially acceptable resource management (McCay and Acheson 1987). Many theorists maintain that common property systems have played crucial roles in sustainable resource use in various parts of the world. In fact their most significant application in the contemporary world context is to sustainable development. Berkes and Farvar (1989) have pointed out that common property systems can form the long-term grass-roots institutions that facilitate a community's participation in development and conservation.

2.5.1. The commons without the tragedy

The importance of common property systems and management regimes has become increasingly recognized in approaches to resource conservation and development. Recent theoretical trends in the literature on common property resources constitute the foundations on which community-based approaches to natural resource management rest (McCay and Acheson 1987, Bromley and Cernea 1989, Ostrom 1990).

Most common property theorists have today rejected Hardin's (1968) well known theory about the "tragedy of the commons". Hardin's model has to a large extent dominated thinking about common property resources in previous years. Hardin (1968) suggested that the very nature of common property resources would eventually lead to overexploitation since it was in nobody's individual interest to conserve, only to consume. Hardin's (1968) theory has dominated the world of property theories as well as resource management since its publication. Moreover, it has had unfortunate policy implications, leading to the idea that only state or private property could solve the "tragedy" (McCay and Acheson 1987, Bromley and Cernea 1989, Ostrom 1990).

Common property theorists have criticized Hardin's (1968) model as flawed in predicting behavior when it comes to common property resources. They point out that it essentially confuses two different types of property right regimes, namely common property situation and open-access systems (Berkes 1995, Ostrom 1990). Furthermore, the model assumes an individual actor unbound by any social or cultural constraints, purely acting on individual choice, and helpless to change the incentives faced.

In common property regimes a specific system is in place, complete with a domain of incentives and constraints within which individuals can make their choices about alternative resource use. Thus an individual in a common property regime no longer defines personal benefits and costs in terms of the resource only, but also in terms of the social norms, e.g. punishment for breaking the user rules for the specific resource. Hardin's (1968) theory will only hold if there are no rules governing access to the resource, i.e. it is of open-access nature. This has not been the case in most common property resources, and it is argued that in forming his theory Hardin (1968) disregarded important historical data (McCay and Acheson 1987). Berkes (1989) maintains that quite the contrary, when given a resource management problem, people will organize

themselves in a specific way, and various social and cultural factors work to control people's access to resources.

A major problem of previous paradigms in common property resource management is the fact that the 'tragedy of the commons' has been confused with what is actually the tragedy of an open-access resource system. Such a situation is promoted when CBNRM systems have been disrupted and states fail to manage the resources properly and enforce an effective management regime (Lynch and Alcorn 1994, McCay and Acheson 1987). In particular, it has been pointed out that the colonial period in developing countries led to the rapid decline of community-based systems, which deteriorated even further under subsequent governments following independence (Bromley and Cernea 1989, Kiss 1990). This has happened widely in the developing world and with particularly disastrous effects arising from the nationalization of former communal forests in various parts of the world (Ostrom 1990). A similar situation has also arisen in many protected areas, where the state has uprooted traditional management systems in favor of "preservation", leading to rapid decline since there were no enforcement mechanisms to enforce rules that local people came to see as inequitable. The consequence of such nationalization has thus created open-access resources, where limited-access common-property resource regimes had previously existed (Ostrom 1990).

The increased understanding of common property regimes has made clear that in some contexts, collective, decentralized resource management regimes are an appropriate structure for environmental and resource management (Bromley and Cernea 1989, Hanna et al. 1995). The recognition that people in various parts of the world have developed systems that restrict access to and use of marine and terrestrial resources has led to renewed interest in these traditional systems as the frameworks for ecologically sound development and socially acceptable resource management (McCay and Acheson 1987). The aim of most CBNRM approaches today is to revitalize these systems or to modify them in the context of new and changed social and political contexts, building on the positive conservation ethics and knowledge that already exists.

2.5.2. Rationales for community participation in resource management

Re-establishing or designing community institutions for resource management can be seen as a logical approach within a more general participatory framework to rural development in general. Byers (1996) points out that poor rural people often have the most direct interest in the local natural resource base and are often the most politically and economically disadvantaged of any stakeholder group. Thus their active participation becomes especially important. Moreover, as Bromley and Cernea (1989) argue, if local people have no influence over how conservation projects affect their lives, then it follows that the projects will have no influence on the way individuals at the local level interact with the resources.

It has become evident that when rules governing resource regimes are crafted by the participants themselves, they are more efficient, and the costs of enforcement and monitoring are decreased and rules are perceived as more effective and equitable (Ostrom 1990). A fundamental rationale for local participation and the encouragement for revitalizing common property regimes can be seen as purely economic. Berkes and Farvar (1989) argue that a practical reason for governments to encourage common property systems is that it makes sense both from administrative and economic viewpoints to involve user groups in management, especially in cases where these groups have proven their ability for self-management. CBNRM approaches should have the potential to become both an equitable as well as a cost-effective means for governments to conserve and manage resources.

Incorporating traditional knowledge into rural development projects as well as conservation projects has become recognized as a fundamental principle of a more holistic approach. It is quite evident that where people rely directly on their natural surroundings for their livelihoods, they develop an intimate knowledge of those surroundings, which in turn informs their actions (The Ecologist 1995). Tapping into this knowledge, therefore, becomes crucial for project success. It further ensures that solutions are culturally sensitive and enhance the distribution or social equity aspects of projects.

Of fundamental importance for the feasibility of implementing property rights is their consistency with social goals for equity, efficiency and sustainability and the

enforceability of resource use rules (Hanna et al. 1995). Common property regimes are generally thought to have the capacity to manage rural resources in ways that meet multiple criteria of importance to rural people. CBNRM approaches are important in this context since in theory they aim to incorporate these factors. Efficiency, equity, and sustainability appear to be optimized by resource - poor rural communities themselves when they are dependent on collectively managed natural resources (Gibbs and Bromely 1989). Thus, participation through community-based management institutions can potentially provide foundations to promote these fundamental principles.

2.5.3. Towards successful common property regimes

> *Community-based systems are not operated by "ecologically noble savages" living in harmony with nature, nor by individuals whose best interest is always to seek short term gain, but by individuals responding to tenurial rights and incentives to act in their own best interest and maintain the collective resource base.*
>
> (Lynch and Alcorn 1994; 375)

The decisions and actions of common property resource appropriators to use and maintain the resource are those of rational individuals who find themselves in complex and uncertain situations (Ostrom 1990). Like in any other property regime, individuals under common property regimes are responding to incentives. These incentives and their social context represent the choice domain for the individual when it comes to weighing the costs and benefits of certain behaviors. Bromley and Cernea (1989) point out that there are both economic and non-economic incentives that encourage compliance with certain conventions and institutions. These incentives can also be regarded as essential operating rules, and they are accordingly laid out in various forms: social norms, financial incentives and others. How the rules are spelled out will depend on design in a specific cultural and ecological context. The set of rules governing each common property institution has been shown, therefore, to vary widely. However, general principles can be detected. Ostrom (1995) identifies eight general design principles in robust common property management institutions that experience has proven to be successful (Table 2.2).

Table 2.2. Eight principles for successful common property resource institutions. (Source: Ostrom 1995).

PRINCIPLES FOR SUCCESSFUL COMMON PROPERTY RESOURCE INSTITUTIONS	CHARACTERISTICS
1. CLEARLY DEFINED BOUNDARIES.	Individuals or households with rights to withdraw resource units from the common pool resource and the boundaries of the resource itself are clearly defined. This is a first step in organizing for collective action. If this is not done, people don't know what they are managing and for whom, i.e. the need to exclude non-owners in use and benefits.
2. CONGRUENCE BETWEEN APPROPRIATION AND PROVISION RULES AND LOCAL CONDITIONS.	Appropriation rules restricting time, place, technology and/or quantity of resource units are related to local conditions and to provision rules requiring labor materials and/or money.
3. COLLECTIVE CHOICE ARRANGEMENTS.	Most individuals affected by operational rules can participate in modifying operational rules.
4. MONITORING.	Resource conditions are actively audited and resource users are accountable to the appropriator.
5.GRADUATED SANCTIONS.	Appropriators who violate operational rules are likely to receive graduated sanctions from other appropriators, from officials accountable to these appropriators or both. People face incentives to break or comply with rules.
6. CONFLICT RESOLUTION MECHANISM.	Appropriators and their officials have rapid access to low-cost, local arenas to resolve conflicts among appropriators or between appropriators and officials.
7. MINIMAL RECOGNITION OF RIGHTS TO ORGANIZE.	The rights of appropriators to devise their own institutions are not challenged by external government authorities.
8. NESTED ENTERPRISES. (IN BIGGER CPRs)	Appropriation, provisions, monitoring enforcement, conflict resolution and governance activities are organized in multiple layers of nested enterprises.

Ostrom's (1995) design principles provide fundamental guidance for including the necessary ingredients in successful common-property resource management systems. It is important to note that any common property system is essentially a social institution, and as such the success of its development is dependent on how well it reflects the social and ecological context of each particular resource (Hanna and Munasinghe 1995). It follows that no single blueprint can be applied of every CBNRM approach. Its design and implementation must be based on general principles, but must be flexible enough to allow for the vast amount of variation in cultural and economic circumstances to be found around the world.

2.5.4. Expanding partnerships

CBNRM approaches presently provide the working framework for extended partnership in conservation. The partnerships needed to achieve new goals in conservation and development include various stakeholders: local communities, government, NGOs, donors and academic institutions (McNeely 1995). Successful conservation requires integrating the values and interests of a range of human stakeholders and actors (Byers 1996). CBNRM is an approach attempting to achieve this integration through broad partnerships, between governments, international conservation organizations, donors and, most importantly, rural communities.

CBC is about sustainable community institutions aimed at managing common property resources. The emergence of such institutions, in light of the long period during which the importance of the communal context was ignored, is, as Murphree (1994) points out, a long and dynamic process. Rebuilding and revitalising these common property instutions requires in many cases extensive capacity building, which often lies outside the capabilities or role of government to provide. Thus the role of NGOs in implementing CBNRM systems and facilitating work at the local level has become increasingly apparent. Building management capacity at the local level as well as facilitating local-government relations is an important and essential task of NGOs in the process.

It is important to note that CBNRM approaches are not a panacea for all conservation problems, but they are presently showing promising results in specific circumstances. Furthermore, the devolution of property rights from government to common property institutions is not the appropriate course of action in all circumstances. Western and Wright (1994) point out that in some cases it might prove detrimental to good resource management. Moreover, devolution of property rights is never total. Lynch and Alcorn (1994) point out that the recognition of private rights does not rule out governments taking steps to ensure that conservation objectives are being met by the holders of these rights and from intervening when they are not. Government as an actor, therefore, will not cease to play an important role in resource management and conservation, although to some extent CBNRM does represent a shift in power regimes. Local people will have the rights, but they can be recalled if those rigths are not being

excersized with due attention to agreed-upon responsibilities. In an important sense, present common property resource management is thus a partnership between governments and communities.

CBNRM approaches do not automatically assume that people made better off by a development project will refrain from illegal resource activities and use the resource sustainably. Giving people control over the resource does not automatically mean that they will conserve them (Wells et al. 1992, Western and Wright 1994). The argument is by no means that all local people are by definition conservationists or "noble savages" (Lynch and Alcorn 1994). Rather, given the right incentives in the form of common property institutions, accompanied by capacity building and community empowerment, local people can become meaningful partners in conservation of natural resources. With clearly defined ecological objectives and varying use strategies, local participation can contribute to reconciling local people and the resource they rely on for their livelihoods (Wells et al. 1992).

2.5.5. CBNRM and sustainable development

Devolution of property rights to common property institutions is not a panacea for all contemporary conservation and resource management challenges, it has, however, the potential to address objectives of fundamental importance on the path to sustainable development. Ostrom (1995) argues that while small-scale institutions are not the only solution there is a need for institutional diversity among the local institutions in sustaining biological diversity over the long run, since they are a necessary part of the multilevel governance system needed for the future.

Within a basic framework of sustainable development, the CBNRM approach builds upon three basic components: economic, social and ecological. The economic aspects address the changing incentive structures in benefits and property rights while stimulating development and increasing income. The social components address equity issues, social empowerment and capacity-building with local participation in rural communities. Finally, the ecological components address the maintenance of the collective resource base and biodiversity protection. Each objective is closely related to

the other two, as all objectives have to be recognized and met in a truly successful CBNRM program.

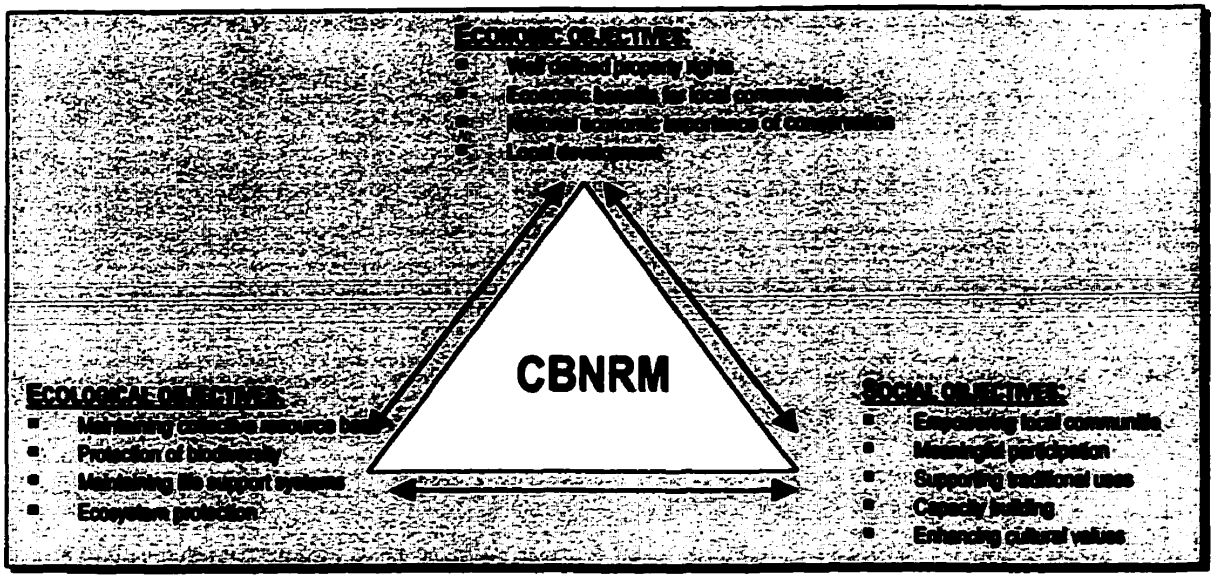

Figure 2.3. CBNRM and fundamental objectives of sustainable development.

In theory, CBNRM does in essence address all key elements of sustainable development as illustrated in figure 2.3. The key is applying a general framework and philosophy to real and complex social and ecological circumstances.

2.6. CONCLUSIONS

One of the most important factors in the shift of paradigms in resource conservation has been recognition of the inequities as well as conservation failures of previous approaches. The need to involve local people, i.e. the traditional users of the resources, for whom conservation is meant is now widely recognized. Which approaches have been taken varies, as does the level of participation. CBNRM approaches seek to maximize that participation by devolving proprietorship, i.e. responsibilities as well as rights to communities, as opposed to other approaches which have primarily seen people as silent beneficiaries.

In recent years there has been an increasing recognition that devolution of property rights is an important prerequisite for successful resource management at the community level. That realization has been largely driven by a theoretical appreciation for the importance of common property resources and the role communal management systems have traditionally played in restricting access to resources and ensured their sustainable management. Essentially four main sets of principles or working can be drawn from the previous discussions:

- People interact within their environment. That link should not be broken with conservation policies that exclude local people from the use of natural resources. Local people need to be involved in decicison-making for the conservation of natural resources that affect them and are affected by them.
- Where the resource does not require strict preservation, measures should be taken to use the resource efficiently and maximize the flow of benefits from the resource on sustainable basis. Those benefits must accrue to the people that bear the cost of managing the resource, i.e. rural communities.
- Property rights regimes need to be clearly defined within a given social and ecological context and allow for people's decisions on how to use and benefit from the resource, in order to establish the link between its conservation and benefits generated.
- Common property resource institutions in many cases represent viable means of revitalizing local control of resources.

While few of the projects that have attempted to incorporate these principles can to date claim total success, there is a sign that such projects can remain important in linking conservation and development. Larson et al. (1998) maintain that when the goal of biodiversity conservation must be balanced with the social and economic needs of residents, an integrated conservation and development approach will be an essential and a primary conservation tool.

Presently, CBNRM represents a promising paradigm to expand conservation approaches, building on potentially sustainable community institutions. These not only include protected areas *per se,* but also extend conservation initiatives onto rural land in

general. By attempting to link local participation, conservation and development, it is hoped that projects will lead to long-term horizons on resource use and empowerment in communities.

CHAPTER 3
WILDLIFE UTILIZATION, CONSERVATION AND DEVELOPMENT IN AFRICA: A LITERATURE REVIEW

Conservation will either contribute to solving the problems of the rural poor who live day to day with wild animals, or those animals will disappear.

(Adams and McShane 1996; xix)

The history of human coexistence with wildlife reaches back to the dawn of humankind in Africa. The last hundred years have, however, seen deteriorating conditions for both humans and wildlife in the continent. The problems arising from past conservation policies and increasing economic pressures on wildlife resources have led to a rethinking of wildlife[1] management strategies in Africa. Increasing poverty, population pressures and subsequent environmental degradation in Sub-Saharan Africa have called for approaches that integrate rural development and enhance human livelihoods as well as conserve wildlife and other natural resources.

This chapter explores the history of wildlife conservation in Africa, and the need for new alternative approaches. The new approaches have focused on community participation and the potentials of linking wildlife utilization with local development (Barbier 1992). The economic rationales for wildlife utilization that provide the foundations upon which CBNRM approaches in Africa are based will be explored and finally some examples of and lessons from CBNRM approaches in Africa be examined briefly.

3.1. OVERVIEW OF WILDLIFE CONSERVATION IN AFRICA

Could it be that the root cause of our dilemma lies not with the continent and her people, but with us conservationists and our policies? Surely, if these policies were just and rational we should be achieving better success.

(Owen-Smith 1993; 57)

[1] Wildlife in this thesis is defined as including all non-domesticated terrestrial animals and birds.

3.1.1. Wildlife conservation and the colonial times

The colonial governments established the continent's first game reserves in their African colonies. The earliest reserves were established in South Africa in 1895, and in Kenya in 1896, and set the stage for others to be set up across the continent. The national governments replacing the colonial powers in the 1960's and later continued to be supportive of the reserves and further expanded the systems of protected areas. Presently there are 426 protected areas in Africa, covering about 4.4% of the continent's surface area. Furthermore there are 31 biosphere reserves and 18 world heritage sites (Kiss 1990).

Europeans settling in Africa became fascinated with what Adams and McShane (1996) call "mythical Africa", a continent where wilderness prevailed. Extensive wilderness and abundant numbers of wild animals captured the hearts of European discoverers, but the fact that people actually lived within this wilderness was of little relevance (Anderson and Grove 1987, Adams and McShane 1996). The European settlers regarded the African hunters as cruel barbarians, and their hunting was deemed unnecessary for the African way of life (Adams and McShane 1996). As the colonial period proceeded, the hunting of wild animals became a sport for elitist Westerners who blamed African "poachers" for the declining game numbers.

It has been pointed out that it was not the rural African people who were primarily responsible for the degradation of African wildlife, but rather the farming practices of the new European settlers that proved to be most devastating. Many species proved incompatible with the imported European farming practices and were eradicated as their prime habitat was converted to agricultural uses (Owen-Smith 1993). Moreover, the slaughter of wild animals by European hunters was devastating for many species, a phenomenon which has been well documented (see. e.g. Adams 1987).

During the colonial period, local rural people were gradually excluded from all use of wild animals. On the farms of the white settlers, wildlife became the property of the landowners. Moreover, even on the marginal lands where tribal reserves were allocated, the authority over wildlife was in the hands of the white colonial governments (Owen-Smith 1993).

The exclusion of rural Africans continued with the establishment of national parks and game reserves in the colonies (Anderson and Grove 1987). These areas were usually on marginal land, where climatic conditions or endemic livestock diseases made modern agriculture and ranching hard or impossible (Owen-Smith 1993). The establishment of these reserves was the result of the decline in game numbers in the colonies. Some of the more threatened species were declared "royal game" and could not be killed at all. In these new game reserves and national parks, the existence of people was regarded as incompatible with nature conservation and people were moved to new lands (Owen-Smith 1993). These ideas were in line with the prevailing ideas of nature conservation emerging in the West.

However, the model used to establish national parks and game reserves in Africa was not designed for the social and ecological context in Africa. African wildlife is highly mobile and moves in and out of parks and reserves onto other rural land. In fact, much of African wildlife exists outside formerly established protected areas (Kiss 1990). This carries important implications, both for the conservation efficiency of game reserves as well as for the people on rural lands living with wildlife.

Examples of wildlife conservation in Africa are remarkably similar from across the continent (see e.g. Yeager and Miller 1986, Anderson and Grove 1987, Kiss 1990, Njiforti and Tchamba 1993, Wright 1994, Matzke and Nabane 1996, Brown and Jones 1998). The literature suggests that conflicts arising between wildlife and people in Africa were the norm, during and following the colonial period. While wildlife was once a valuable resource for rural people, managed under common property institutions, the new conservation policies and legislation made wildlife a threat or a nuisance to people and their livelihoods. The balance of living with wildlife had been shifted in the rural lands of Africa.

This situation has worsened in recent years, as a result of increased population pressures, poverty and the growing scarcity of arable land in Africa. According to Barbier (1992b), direct land-use conflicts over protected areas are now the norm in many parts of Africa, since poaching and encroachment in the protected areas are often the only means of providing a livelihood for rural people.

The increased poaching and the conversion of land to agricultural practices has led to a massive decline in game numbers in Africa, both for bigger mammal species as well as smaller game (Kiss 1990, IFAD 1995). In the 1980's, governments and conservation organizations were faced with a crisis situation, as it became evident that new measures had to be sought (Steiner and Rihoy 1995, Gibbs and Marks 1995). It was time for conservationists to ask whether their wildlife policies had any relevance for modern Africa (Owen-Smith 1993). Adam and McShane (1996) point out that 'as long as conservation operates on the notion that saving wild animals means keeping them as far away as possible from humans, it will become less and less relevant in Africa.'

3.1.2. Alienation from the resource

Rural people in Africa have traditionally seen wildlife as a gift of nature, which was theirs to use, and which had in many cases played an important role in local cultures and economies, e.g. providing an important source of protein for many people (Kiss 1990, FAO 1997). The establishment of national parks and game reserves during the colonial period often directly displaced rural communities from land and resources they had traditionally considered theirs (Anderson and Grove 1987, Kiss 1990).

The present literature on African conservation emphasizes the alienation of rural Africans from wildlife resources (see e.g. Kiss 1990, Barbier 1992b, Adams and McShane 1996, Brown and Jones 1998). This implies that in the past, people of Africa have indeed made use of the resource and co-existed with wild animals on the land. Many African societies co-existed successfully with wild animals, but throughout the last two centuries this situation has changed as discussed previously. The protection of wildlife and wildlands resources meant that many communities no longer had access to a resource they had traditionally utilized. In recent decades, the prevailing conservation policies have prohibited or restricted the utilization of wildlife resources and the marketing of most products, e.g. ivory. At the same time rural people have been made to bear significant cost involved in living with wildlife (Kiss 1990, Barbier 1992b). People have thus had little incentive to participate in the conservation initiatives.

One way to understand the alienation of African people from wildlife is to look at the changing framework for choice faced by local people in terms of the expected costs

and benefits of their actions. Participating in resource conservation often gives them little benefit while increasing the costs they will likely incur in the future. Furthermore, given the widespread poverty, the 'illicit' benefits from the meat of wild animals, or the money obtained from selling animal parts, weighed heavily against the unlikely event of being caught. Thus, the actual systems of incentives people faced in terms of the real costs and benefits of their actions skewed their relationship to the wildlife resource. Faced with such incentives, it does not seem strange that poaching became an honorable occupation among black subsistence farmers throughout most of the continent (Owen-Smith 1993).

Owen-Smith (1993) argues that the greatest threat to the survival of wild animals in Africa is the fact that rural people have been alienated from wildlife by Eurocentric legislation put in place during the colonial era. The white man could kill and waste as much game as he wished but a black man would be put in jail for simply trying to feed his family (Owen-Smith 1993). Wildlife essentially became the rich white personn's resource and poor rural black person's burden.

The present focus on CBNRM aims to reverse the effects of this alienation, or distorted incentives, and build again upon the previous positive incentives people had for conserving wild animals. It is quite clear that the legacy of colonial rule and Westernized conservation will not be eradicated overnight. The problems in many countries have become deeply rooted in the current administrative and political systems. For development in rural Africa, where livelihoods depend primarily on natural resources, wildlife represents a valuable resource that has to be sustainably utilized to enhance livelihoods and to diversify the rural economies.

3.1.3. Western paradigms and African reality

The history of wildlife conservation in Africa has thus been characterized by Western paradigms of nature conservation. The conservation agenda has reflected this in the priorities, first set out by colonial governments and later pursued by international conservation organizations (Anderson and Grove 1987). Saving species such as elephants and rhinoceros has been seen as an important goal for human-kind for an increasing number of organizations. Many commentators remain critical on the role of Western conservation organizations, particularly in Africa. Adams and McShane (1996) point out

that fundraising is often based on the emotional values of Westerners using the appeal of baby elephants and gorillas while ignoring the complex realities of African conservation.

There are many stakeholders in African wildlife conservation. They range from the people living with wildlife in rural areas to tourism operators, African national governments and international conservationists, to name only a few (Byers 1996, Hasler 1996). International conservationists have come to see wildlife as a world heritage and call for their preservation. African governments in urban settings regard wildlife as a resource and a source of national income, while rural people have regarded these resources as their own in view of the important role they traditionally play in their local culture, diet and economy (Adams and McShane 1996). Successful wildlife conservation in Africa must attempt to integrate these competing perspectives, and devise compatible policies and incentives.

Rural people in Africa have typically not entered the conservation negotiation process as an influential or powerful stakeholder (Gibson and Marks 1995). An important question often raised in many of the integrated conservation and development projects is the extent of a community's voice as to whether to participate in the conservation of a specific resource. To a large extent, it is argued, the agenda has already been set by donor organizations and conservation groups. While participation of local people has become the "right way" to go about conservation, it is often not carried through in reality (Murphree 1996). Along the same lines of thought, Gibbs and Marks (1995) point out that present conservation policies are not unlike their colonial predecessors, in the top-down way that objectives are formed. Many call for an increased role in agenda-setting by the rural African communities themselves, i.e. conservation 'by' rural communities as opposed to 'with' them (Murphree 1996, Adams and McShane 1996).

Adams and McShane point out (1996) that people in rural Africa often see wild animals from a different perspective than do people not living amongst them. They argue that it is easy to call for a halt to killing elephants from the comfort of an office setting in the developed world. Reality looks very different, however, when elephants raid your fields, kill your livestock and threaten your livelihood. Increased understanding of this fact has in recent years led to more sensitivity in setting the agenda but the extent to which rural Africans are presently influential in this process is questionable.

Many authors have pointed to the differences between Western and African environmental perspectives (Anderson and Grove 1987, Murphree 1996). A good example is the different ways the two groups understand the term 'wilderness'. Adams and McShane (1996) point out that in Western thoughts, 'wilderness' lies 'out there', distinct from daily life. In Africa, people are living among wild animals and the wilderness exists just outside their house (Murphree 1996). Thus, they argue that the Western notion of wilderness does not hold in Africa, because humans and animals have co-evolved through the centuries in the context of the continent's diverse ecosystem.

A further distinction about alternative paradigms can be made regarding the ethics pertaining to the human and wildlife relationship. Western conservationists maintain that wildlife has an ethical right to survive. What about the ethical right of humans to retain their livelihoods? The ethical standards supportive of the Western argument for animal rights do not apply in Africa (Adams and McShane 1996). Imperialism takes many forms; it can, for example, appear in the guise of an ethical concern for animals. Murphree (1996) points out that African ethics towards animals are essentially anthropocentric. While wildlife is accorded cultural respect, wild animals primarily have the status of a resource for human use under culturally defined rules. From this notion there emerges a different understanding of the concept of conservation. It is considered to be an end in itself in the Western paradigms, while being a means to an end for the rural African farmer (Murphree 1996).

The differences in perspectives have been reflected in local approaches to conservation as well as in international conservation agreements. Nowhere has this clash in ideology been more evident than with the *Convention for International Trade in Endangered Species* (CITES). The called-for ban on ivory trade heated confrontations among African nations and Western conservationists. Southern African countries, particularly Zimbabwe, Namibia and Botswana, have argued the elephant populations were not only well managed, but were relied upon for income (trade of ivory and skin). This income was used to manage both parks and reserves (Barbier 1992b, Hasler 1996, Adams and McShane 1996). This view, however, was not well received by the international community until recently, when a limited trade in ivory was again permitted for these nations. The CITES debate underlines that international environmental policies

should not be implemented without taking into account the implications for national and community-based development in Africa (Barbier 1992b).

The ethical standpoints of Western conservationists have shifted in recent years, as discussed in the previous chapter. There has been a realization that new approaches are needed in African conservation that take into account the African reality. Conservationists have increasingly accepted that they cannot expect the poor people of Africa to pay the costs of conserving biodiversity and pristine wilderness that are largely for the recreational and inspirational benefits of foreigners (Owen-Smith 1993). Owen-Smith (1993) calls for recognition among conservationists that wild animals in Africa do not belong to the affluent in Europe, North America, or Japan, but to the people of Africa. He furthermore holds that the primary value of wildlife should not be seen as a use value for foreign tourists or as an existence value for wealthy Westerners. From Africa's perspective, wildlife and other natural resources must first and foremost be considered as sources of economic development and used to improve the livelihoods in human communities in and around the areas where wildlife still exists (Owen-Smith 1993, du Toit et al. 1996).

3.2. ECONOMICS OF WILDLIFE UTILIZATION

The potential economic benefits of wildlife utilization have provided a strong rationale for the shift from previous paradigms of preservation towards one linking wildlife conservation with local as well as national economic development. Wildlife offers a variety of consumptive and non-consumptive uses, which can increase the overall economic value of the resource (Eltringham 1984, Kiss 1990, Barbier and Swanson 1992). The emergence of wildlife utilization programs in Africa builds on the notion that sustainable use of wildlife can both provide the funds necessary to sustain and conserve wildlands and add substantially to livelihoods of communities by generating employment, and a variety of other tangible and intangible benefits. The underlying idea is that linking the conservation of wildlife to income generated in local communities will provide the means to reconcile communities and wildlife, thus creating incentives for local participation in conservation efforts.

3.2.1. Economic value of wildlife

Wildlife management schemes in recent years have been shown to have considerable income potential that can benefit both national governments and local people. One of the advantages of wildlife as a natural resource is its wide range of values. These can include recreational and aesthetic values, culture and scientific values in direct nutritional value. Thus the important economic potential of wildlife resource utilization can support a variety of uses, including (Cummings 1990 quoted in Barbier 1992b):

- tourism, game viewing and photographic safaris;
- safari and trophy hunting of wild populations;
- cropping wild populations for meat, skins and other products;
- game ranching; and
- game farming.

In many cases wildlife can be put to several different uses simultaneously because some uses do not depend on increased depletion of the wildlife biomass. They are, in other words, non-consumptive uses, e.g. photographic tourism (Kiss 1990). Within Africa's rural resource systems there is a potential for diversification and compatible land uses. Wildlife management may not demand exclusive land use and, therefore, can be compatible to a significant degree with other land uses such as grazing livestock or crop farming (Steiner and Rihoy 1995).

Presently, non-consumptive tourism and trophy hunting offer the greatest financial returns to wildlife utilization, more than harvesting animals for meat or skins (Kiss 1990). By shifting the focus of utilization to safari hunting and non-consumptive tourism, this utilization pattern presents greater potentials for efficiency and higher income from the resource without an increase in the biomass depletion. Furthermore, these balanced uses represent an opportunity to conserve many wildlife non-use values such as ecosystem functions and option values for future generations.

3.2.2. Wildlife utilization and management as a land-use option

The economic viability of wildlife utilization and management in terms of land use is of central importance to the CBNRM projects in Africa that are based on wildlife. It is

clear that in some cases conservation projects linked with protected areas may need external financial input, due to costs of conserving vital elements of biodiversity (Kiss 1990). At the same time, it has become increasingly well recognized that in other cases, wildlife use and management must 'pay its way' as a land use option in order to survive in rural Africa (Murphree quoted in Adams and McShane 1996).

Wildlife utilization and management is an emerging land use option, which is widely considered as a sustainable and economically viable activity for the development of some areas in Africa (Kiss 1990, Barbier 1992a, Muir and Bojö 1994). Raymond Dashman and Archie Mossman, two American Fulbright Scholars working in Zimbabwe in the 1970's, are often credited with providing the groundwork for these new paradigms. They showed that, at least theoretically, Africa's indigenous herbivores had the productive potential to compete economically with domestic livestock in many situations (Owen-Smith 1993).

In fact, research has shown that in many circumstances wildlife use and management can be a better land use option than agriculture, both in terms of total economic benefits and financial returns (Muir and Bojö 1994, Barnes 1998). Resent research indicates that in many areas currently facing extensive logging or conversion to agricultural use, wildlife utilization may represent a more productive and sustainable form of development (Kiss 1990, Barbier 1992b).

Much research on the economic viability of wildlife-related development as a form of land use has been carried out in southern parts of Africa. This research generally has demonstrated that in remote and arid parts of countries such as Namibia, Zimbabwe and Botswana, utilizing wildlife can yield greater economic and financial benefits than, for example, cattle ranching (Muir and Bojö 1994, Steiner and Rihoy 1995, Barnes 1998). In fact, commercial wildlife farming is now regarded a financially viable activity in these countries. The viability of wildlife will depend largely on prevailing conditions, such as the proximity to protected areas, settlement patterns and wildlife population density. Where these conditions are favorable, wildlife can be a financially viable, competitive and potentially sustainable land-use option (Muir and Bojö 1994, Bond 1995, Barnes 1998).

The fact that wildlife use and management can be a viable land use option in terms of total economic benefits to society, but not from a financial standpoint, is because some societal values are not reflected in the financial returns. These benefits, however, are reflected to a significant extent in assessments of the total economic value of a land-use option. For community-based wildlife schemes, social benefits could, for example, include retaining biodiversity and various ecosystem functions, leveling out income distribution and enhancing capacity in rural areas. All these have a great value from a national development perspective while not reflected directly in market financial returns (Kiss 1990).

Due to distortions from subsidies and high social costs of environmental degradation, agriculture can actually have negative economic returns, while showing positive financial returns. The subsidies and disregards for externalities have created a divergence between private and social costs and made cattle ranching and agriculture seem more financially and economically viable then they actually are in Africa.

An important factor in the attraction of wildlife use and management as a land use is that it can be compatible with other land uses. Barnes (1998) points out that the total economic value of land uses can be maximized if development takes place within a spectrum of land use zones in which economic use values are optimized and loss of non-use values are minimized. Steiner and Rihoy (1995) point out that in CBNRM, wildlife can be one of the elements in the process of optimizing the productivity of a limited resource base under the jurisdiction of a communal management regime. Wildlife has therefore a definite complementary role in southern Africa, and can play an important role in diversifying the economy and land-use strategies (Barnes 1998).

The viability of wildlife projects in Africa depends on the extent of global valuation of wildlife resources for intrinsic and aesthetic values. If the international community shows a clear demand for these values, mechanisms may be found to translate the expressed values into appropriate revenue streams to the local communities and national governments, thereby influencing policy decisions (du Toit et al. 1996). Muir and Bojö (1994) point out that in certain areas, the international community clearly benefits from land allocation to wildlife. International institutions that link costs and benefits at the international level, therefore, will have an important part to play in expressing these

values so that they become a factor in the overall analysis of the costs and benefits of wildlife utilization and management as a land use.

In general, it can be concluded that the current literature regards wildlife as potentially representing a financially and economically viable land-use option, when subsidies and distortions have been removed. However, many researchers call for a more extensive economic analysis and point out that few of the current community-based wildlife management schemes have actually been subject to extensive cost-benefit analysis (Kiss 1990). However, such cost-benefit analysis should incorporate the total economic benefits, including assessment of social benefits and costs for society of a given wildlife scheme as well as analyzing the financial returns.

3.2.3. Consumptive uses of wildlife

In the past, the major uses of wildlife were in the form of direct consumptive uses, i.e. the utilization of meat, skins and other animal products. Today, few people in Africa rely on hunting as their main occupation. For those who continue to hunt, it is supplementary to their main occupations, e.g. farmers, or laborers (FAO 1997). The importance of hunting as a direct means of subsistence has accordingly decreased during this century (Adams and McShane 1996). There has been a shift to more profitable uses, rather than being primarily for subsistence; trophy hunting and live animal trade have proved to be a good source of income (FAO 1997).

In recent years, the most lucrative consumptive uses of wildlife have become safari hunting or trophy hunting. Hunters from outside Africa are prepared to pay large amounts of money to shoot certain trophy animals. These payments represent a very high use value of the wildlife resource. Most of the CBNRM programs in Africa have been able to retain the greatest part of the value generated through such mechanisms. The *Communal Area Management Program for Indiginous Resources* (CAMPFIRE) in Zimbabwe and the *Administrative Design Program for Management of Game Ares* (ADMADE) in Zambia, for example, have captured over 90% of their revenues from trophy hunting (Steiner and Rihoy 1995). Furthermore, the by-products of trophy hunting, such as meat and skins, are often distributed back to the communities.

The importance of safari hunting in the present CBNRM initiatives can potentially present problems, considering the different views and ethical considerations of what is acceptable wildlife utilization. Adams and McShane (1996) point out that the acceptability of well-managed safari hunting as a means to achieve conservation will largely depend on how it is perceived in the West. The growing animal rights movements in Europe and the United States could potentially force international organizations and NGOs to drop safari hunting from the conservation toolbox, arguing that such form of utilization is unacceptable from a Western ethical standpoint (Adams and McShane 1996). This potential barrier for consumptive uses of African wildlife, as well as enormous growth in the non-consumptive tourism industry in the world, has led people to look increasingly towards non-consumptive forms of wildlife utilization.

3.2.4. Non-consumptive uses

The vast majority of tourists interested in nature originate in the industrialized countries (Whelan 1991). Thus, the growing demand for wildlife conservation in the West is of direct relevance to tourism, since it represents potential for building on the non-consumptive use of unspoiled nature and wildlife as a resource (Pigram 1992). By giving ecosystems a socio-economic value in their original state, nature tourism presents an excellent opportunity as a tool for linking conservation and development (Filion et al. 1994, Furze et al. 1996). For many countries in Africa wildlife and nature-related tourism can offer viable means for rural as well as national development.

Wildlife-based tourism is essentially a non-consumptive means of using the resource to benefit human population (Barnes et al. 1992). Tourism based on wildlife as a resource is well developed in eastern and southern Africa where the industry contributes significantly to national incomes and is a key foreign currency earner in a number of countries (FAO 1997). Although it is well recognized that tourism with a 'nature' or 'eco' label attached to it can also contribute to environmental degradation, it has become clear that sensitively managed wildlife tourism in many African nations does offer a chance to develop an environmentally responsible and high-value-added industry. Concomitantly, wildlife is protected by removing or reducing the incentive to develop land for agriculture and to exploit wildlife in forms of destructive consumptive uses (Barnes et al. 1992).

As a non-consumptive form of utilization, wildlife tourism can protect other forms of resource values such as its existence values and ecosystem functions. It has become evident in some countries that non-consumptive forms of tourism can generate more revenues than other forms of consumptive wildlife utilization such as safari hunting (Steiner and Rihoy 1995). Barnes et al. (1992) also point out that a well-managed wildlife tourism industry can produce relatively high returns, often rivaling other major sources of national income, in particular in the developing countries. This is particularly important since international tourism earns much-needed foreign exchange. Swanson (1992) estimates that 11% of the export earnings of Sub-Saharan Africa is derived from tourism (Barnes et al. 1992). Tourism is, for example, the third highest foreign exchange earner in Zimbabwe, after mining and agriculture, with wildlife being the backbone of the tourism industry (FAO 1997). Kenya earns US$ 350 million in tourism receipts annually, almost entirely due to wildlife tourism (Whelan 1991). It has been estimated that ecotourism or nature-related tourism accounts for some 40-60% of international tourism and that wildlife-related tourism accounts for 20-40% depending on the region (Filion et al. 1994).

The simple fact that wildlife-related tourism has such great potential for income generation does not provide a sufficient analytical context. Tour operators and national governments in Africa have in the past benefited from wildlife-related tourism while little income has been generated in the communities living with wildlife (Owen-Smith 1993). A shift in the distribution of benefits from tourism will have to accompany the development of wildlife-based tourism to ensure its sustainability. A new concept, gaining attention only in recent years, is community-based tourism (CBT). It represents a form of tourism in which communities gain more control over the management and benefits of the tourism ventures in their localities (Ashley 1997). CBT is a promising development in the process of empowering rural communities. But as Steiner and Rihoy point out (1995), while a simple community-run rest camp operation may break even, the communities themselves will rarely succeed in generating significant financial returns without external partners from the private sector in tourism marketing and development. This has led to the emergence of the concept of joint ventures in tourism development in Africa. They represent a shift in power relations and benefits distribution. *Joint ventures* are a new form of co-operation in which communities and private operators join forces in

tourism development. This concept will be addressed further in the Namibian case studies.

3.2.5. Balancing the cost of wildlife in Africa

The importance of rectifying unequal distribution of benefits and costs for local communities has now been well recognized. It is of critical importance for wildlife to provide tangible economic benefits to the local communities since these economic benefits serve as an effective incentive for conservation of wildlife. Thus, the incentives must be tied to the continued presence of the wildlife and its habitat, both in *reality* and in *local perceptions* (Kiss 1990). The question of how to link benefits effectively to the perceptions of local communities about wildlife resources remains when in many cases local people have themselves ceased to see wildlife as a resource. Two issues are of central importance when it comes to attempting to balance the benefits and costs of wildlife. First, any revenues from wildlife ventures must be steered towards the local community, and second, the distribution within the community is of utmost importance. The variety of benefits from wildlife utilization that can be focused to the local level can be put into three categories (Table 3.1) (Gibson and Marks 1995).

Table 3.1. Three main forms of benefits from wildlife projects. (Adapted from: Gibson and Marks 1995).

MAIN TYPES OF BENEFITS	MANIFESTATION OF BENEFITS AT THE COMMUNITY LEVEL
BENEFITS DIRECTLY LINKED WITH WILDLIFE	Jobs as game guards, employment in tourism lodging, meat from culling operations, and household financial dividends from revenue sharing.
BENEFITS INDIRECTLY LINKED WITH WILDLIFE	Community development projects, such as the establishment of health centers, schools and the construction of new water wells.
INDIRECT SOCIAL AND CULTURAL BENEFITS	Empowerment of the community by management training, a sense of resource ownership, increased capacity and control over local development, and diversification of the rural economy.

The perceptions of people in the communities are of fundamental importance in assessing the overall value that is assigned to wildlife. When it comes to analyze the local perceptions of benefits and costs of wildlife and its utilization, three central questions can be asked (Kiss 1990, IIED 1994, Feldman 1994, Steiner and Rihoy 1995):

- Do people regard the benefits as significant enough to outweigh the costs they incur?
- Do people conceive of the benefits as directly related to conservation of the wildlife resource?
- Do people feel that the distribution of benefits from wildlife utilization within the community is fair and equitable?

People might perceive wildlife benefits as less significant than agricultural benefits for two reasons. First, many of the benefits of wildlife reside in the community as a whole but not in the individual households. Second, they provide additional income rather than providing for substantial or essential needs (Steiner and Rihoy 1995). Also, of significance is whether benefits are weighed against the perceived costs of wildlife, or if communities treat them as windfall profits, i.e. welcome when they come but do not see them in any way related to other resource management decisions (Steiner and Rihoy 1995). People's perceptions of benefits and costs, therefore, carry central implications for long-term resource planning and land use in communities. The perceptions are not only influenced by the direct benefits and costs of wildlife, but also by internal and external social and political factors, including access to markets for livestock and agricultural products, the overall level of development in the community, and the cultural or religious importance wildlife might represent for various communities.

The manner in which benefits from wildlife schemes are distributed to the participant communities is of great importance in establishing the link between benefits on one hand and the conservation of resource, on the other hand. People's time is scarce, and participation without any visible benefits is unrealistic. However, in the long term, it is of central significance whether people perceive these benefits as coming from the responsible management of the wildlife or in the forms of government handouts. In many recent projects in Africa, there has been a failure to establish the link between resource conservation and individual benefits (Kiss 1990). Marks and Gibbs (1995) point out that when benefits have the characteristics of a public good, or common good, such as community development projects, people may fail to establish this connection.

Communities are not homogenous entities and maintaining that communities receive benefits from a particular wildlife project is rather a vague statement and often misleading. There are varying stakeholders and power relations in every community. An important question is who is participating in and benefiting from the project in the community? In some cases, such as in the ADMADE program in Zambia, it has been shown that the chiefs, i.e. the traditional authorities, have been the ones benefiting the most (Marks and Gibbs 1995). In other cases local government officials have been making all the decisions about distribution of benefits and often such decisions can seem inequitable to people (Kiss 1990). Often management institutions and distribution mechanisms have proved to be far from democratic, and projects have failed because benefits were not distributed equitably (IIED 1994). Thus, equitable distribution within communities is of central importance for successful CBNRM and other integrated conservation and development projects.

Steiner and Rihoy (1995) point out that CBNRM programs are built around the assumed link between costs and benefits as the key to changing resource management behavior. It is very important that the link be established between wildlife conservation and tangible benefits to individual members of the community. To offset the costs associated with wildlife, local people must perceive the benefits as both a meaningful component in their livelihood strategies and as significant in relation to the incurred costs of wildlife damage. It is important that benefits are distributed equally in the community with a wide range of participation in such decisions. If projects fail to attain these objectives, sustainability and success of the project are far from ensured.

3.3. COMMUNITY-BASED APPROACHES TO WILDLIFE MANAGEMENT IN AFRICA

Many conservationists and international organizations have come to comprehend that previous African wildlife conservation approaches have been unjust and inefficient (Anderson and Grove 1987, Owen-Smith 1993, Gibson and Marks 1995). A number of African countries have responded to the new view in their own way, with programs that entail the concepts and elements of conservation with local participation (see e.g. Kiss

1990). Their approaches have arisen out of various factors, including: realization of the potential economic benefits from wildlife; problems with current wildlife management schemes which have resulted in dwindling wildlife numbers; and a recognition that the people who live in close proximity with the wildlife are the best stewards, given the right incentives (Gibson and Marks 1995, du Toit et al. 1996). Furthermore, conservationists have come to recognize both the legitimate rights of rural residents to utilize their natural resources and that any wildlife conservation schemes must have the cooperation and support of local communities to succeed (Kiss 1990).

Steiner and Rihoy (1995) identify four main factors that have triggered the common agenda for reform in the conservation of African wildlife (Table 3.2).

Table 3.2. Factors that triggered a search for new participatory approaches to wildlife conservation in Africa. (Source: Steiner and Rihoy 1995).

FACTORS FOR CONSERVATION REFORM	IMPETUS FOR REFORM
THE THREAT OF SPECIES EXTINCTION, WIDESPREAD POACHING AND LOSS OF HABITAT.	By the early 1980's, poaching of high-value species, encroachments into protected areas, and loss of habitat had in many countries reached crisis levels.
THE GROWING INABILITY OF THE STATE TO PROTECT ITS WILDLIFE ESTATE.	Financial crisis facing many governments in Africa and the low political priority accorded to conservation in the face of other social and economic priorities caused conservation issues to be low on the public agenda.
WILDLIFE CONSERVATION AND ITS COLONIAL LEGACY.	Population growth and associated development needs fueled the historical conflict between local communities and protected areas and wildlife managers. Equity issues and compensations for a historical wrong required new answers and strategies.
POTENTIALS FOR LINKING CONSERVATION AND DEVELOPMENT.	Participatory forms of planning and management had proven success in development, thus suggesting replication for wildlife management. Also, economic value of wildlife offered and additional opportunity for conservation to produce tangible benefits for rural development.

3.3.1. Wildlife management under common property institutions

The nature of wildlife as a resource, as well as the African context itself, present a number of challenges for common property management regimes. One challenge arises due to the mobility of wildlife. While many natural resources, such as tracts of land, water reservoirs or forest products can be geographically defined, the mobile nature of wildlife makes it more difficult to define the relevant geographic space (Kiss 1990, IFAD

1995). Wildlife moves over vast areas, and thus it is challenging to devise a means to give communities a sense of ownership over a resource that does not stay put, and to manage it under the communal land tenures prevalent in much of Africa (Steiner and Rihoy 1995). Furthermore, as Kiss points out (1990), people from outside a defined management area can easily hunt and trap wildlife, and leave the area before they are caught. In this way its management can become quite problematic in terms of excluding others from using the resource.

Another challenge in the African context is the varying extent to which local common property institutions are still functioning and relevant. In Africa, as in many other parts of the world, the wildlife resource, once managed effectively under a communal system, has reverted to an open access system as a result of the breakdown of traditional management institutions (Kiss 1990). Moreover, the drain on the resource was much lower in the past due to lower population levels in communities. Today, with increasing population pressures, many opponents of devolution of management rights question the relevance and efficiency of traditional management institutions to govern natural resources. Owen-Smith (1993) points out that not all previous tribal regulations are adequate in today's situation. He maintains, however, that they can potentially provide a locally acceptable baseline on which to build new conservation policies that are in tune with the African communities.

The community-based approaches to wildlife management currently implemented in communal areas in various African nations call for the resurrection of common property resource management systems (IFAD 1995). It is essential that local institutions must be in place to perform the functions necessary under common property systems. These have often included traditional authorities, or some forms of local or regional governments. This, however, has proved problematic in times when many traditional authority systems have broken down and local governments are not well developed (Murphree 1994). Little (1994) points out that the management structures should ideally be built on existing local institutions, but in cases where this is not feasible, new institutions should be created. This can potentially create problems with shifting power structures and interests (Steiner and Rihoy1995).

At their core, CBNRM models require a change in the form of administrative authority and definition of rights to wildlife to the local level. Berkes (1989) points out that natural resources can be handled by many different types of property rights. For wildlife as a resource, it may be helpful to examine the diversity of relationships involving property rights and access conditions, instead of solely emphasizing the ownership status of the resource. Many CBNRM initiatives in Africa stress community-based common property regimes, but it can be argued that they really advocate co-management or multi-jurisdictional wildlife management, in as much as private and community interests are addressed simultaneously (Hasler 1996).

The co-management model is in fact a helpful context for many African CBNRM programs. At some levels in government there has been resistance to assign rights to local people, because it is believed that local institutions are incapable of managing wildlife. Thus, co-management can potentially provide a compromise for those who remain skeptical about resource management at the local level.

Several countries in Africa have developed wildlife management programs or adapted resource management techniques which build on assumptions in common property theory and elements of co-management models (Hasler 1996). In fact in most of the CBNRM programs in southern Africa, *de facto* ownership lies with the community, but the *de jure* ownership still lies with the government. The process has so far focused on decentralizing the management and use rights rather than addressing the actual ownership status *per se* (Steiner and Rihoy 1995).

The main question, however, in this context is whether such forms of co-management or joint jurisdictions are sufficient for creating a sense of community ownership of the resource. Another question is whether the decentralization must eventually evolve into a *de jure* ownership by community-based institutions. At the practical level, the question of whether the nature of the ownership is *de facto* or *de jure* might not be of critical importance, if in any case communities perceive it as a legitimate form of ownership of the resource and alter their behavior accordingly.

3.3.2. Community-based approaches in Africa

A distinction can be made between wildlife-related development projects in Africa, based on whether their main objective is conservation of a protected area, or rural development through the utilization of the wildlife resources on rural land. These objectives may be to varying degrees integrated (IFAD 1995). The focus to date has been mostly on established game reserves and other forms of protected areas. Increasing attention is now being paid to the development of management institutions on communal land. Kiss (1990) identifies three main reasons for the initiation of wildlife management schemes in Africa, as outlined in table 3.3.

Table 3.3. Three main reasons for the initiative of wildlife management schemes in Africa.

GOALS	PRINCIPAL OBJECTIVE
CONSERVATION	To promote preservation of wildland areas or particular threatened or endangered species.
NATIONAL DEVELOPMENT	To take advantage (for national benefit) of lucrative and growing international tourist and safari hunting markets.
RURAL DEVELOPMENT	To generate food and income in fragile or marginal areas, which cannot sustain productive agriculture or livestock husbandry.

Wildlife management initiatives in Africa have the participatory approach in common with other rural development initiatives in Africa, especially natural resource projects in the water and forest sectors. The most important early attempt to integrate local people's needs with modern conservation began in the Amboseli National Park in Kenya in 1960. The Amboseli initiative remains one of the most interesting cases of community participation in protected area management in Africa, although its successes and progress have been mixed (Kiss 1990, Western 1994).

A number of integrated development and conservation projects have been initiated in Africa over the last two decades. Brandon and Wells (1992) and Hannah (1991) have evaluated many of these projects. Wildlife-related projects were evaluated by Kiss for the World Bank in 1990. These projects include the Amboseli Park in Kenya, the Serangeti National Park in Tanzania, in the Volcanoes National Park in Rwanda and a variety of other protected areas in Zambia, Botswana, and Niger to name only a few. The World Bank study concluded that wildlife-related projects had the potential to promote rural development. These projects could lead to an increase in local incomes and improved

standards of living, thereby strengthening the local community structures and human resources and generally empowering local communities to manage their own natural resource with little external input or control (Kiss 1990, Barbier 1992b). However, the success of individual projects in terms of reaching their overall objectives has been mixed. The progress of the projects to date can be said to have been moderate although many important lessons have been learned regarding levels of participation, donor support, distribution of benefits and institutional sustainability.

The successes of these programs can be measured only partly in terms of whether they reached their overall objectives in increasing wildlife numbers and rural income. Kiss (1990) points out that many of them are still in their infancy and should be regarded as pilot projects with unrealized potential. Of importance is the extent to which they have generated useful knowledge for the further development of the CBNRM approach both in terms of their successes as well as failures.

In the last 15 years a number of interesting projects have emerged in southern Africa, notably in Zambia, Botswana, Zimbabwe, and Namibia. These projects have been interesting for various aspects of their approaches, and in particular for their success in devolving user and management rights over the resources to the community level. Moreover, it is noteworthy that their main target areas have been communal rural lands.

The most influential of those projects is the CAMPFIRE project in Zimbabwe. The design of the Namibian model has in many ways been influenced by the Zimbabwe program. A brief review its main elements will be useful in highlighting some of the main issues discussed earlier and is important for the contextualization of the Namibian case study that follows.

3.3.3. CAMPFIRE

The Zimbabwe CAMPFIRE program (Communal Area Management Program for Indigenous Resources) has been a landmark in community-based wildlife management in Africa. The program has introduced elements of ownership and access rights to local natural resources for communities in rural areas. In so doing the government has expanded the community participation in their management and enabled residents to derive economic benefits from their wildlife resources (Matzke and Nabane 1996).

The history of wildlife management in Zimbabwe largely reflects the experience throughout Africa. Under colonial rule all wildlife was state property and legal utilization of wildlife was restricted to the whites. At the same time, African settlement in the country was pushed to the most marginal lands under a system of 'Native Reserves' now referred to as 'Communal lands' (Matzke and Nabane 1996). This resulted in changed cultural perspectives, alienating people from wildlife resources and denying them access to land they previously used on a sustainable basis. Wildlife became a liability and nuisance, although for some it was an illegal source of meat (Hill 1991).

The CAMPFIRE program was officially established with the appropriate legislation in 1986, and is run by the Department of National Parks and Wildlife Management within the Ministry of Natural Resource and Tourism. It is indirectly designed to take pressure off Zimbabwe's national parks by changing the way villagers on communal land view wildlife in non-protected areas (Mbanefo and Boerr 1993). The project, therefore, has the appropriate policy-level commitment and necessary legislation to allow local management of communal land. Moreover, the project is incorporated into the National Development Plan (Matzke and Nabane 1996).

CAMPFIRE evolved as a response to numerous problems in the centralized wildlife management system. Previous community-based wildlife initiatives had failed because rural people were not really involved in the decision-making process and did not receive the benefits necessary to encourage them to participate meaningfully (Barbier 1992, Matzke and Nabane 1996). In the mid 1970's, CAMPFIRE's predecessor, the WINDFALL project, started up in Zimbabwe, but largely failed. Little meat from wildlife harvesting found its way back to the villagers who shared their land with wildlife. Moreover, the small amounts of money that filtered through the bureaucracy were mainly viewed as government handouts. Although the WINDFALL project failed to establish a link between the benefits of wildlife management and conservation, it provided valuable lessons for further continuation of the development of a community-based approach in Zimbabwe.

A central purpose of CAMPFIRE is to empower local people and ensure that the benefits of good resource management reach the communities (Matzke and Nabane 1996). Simply channeling the economic benefits from wildlife to communities is not the

sole aim of the project. It also aims to enhance local decision-making on significant matters such as decisions about the allocation of the wildlife resources (Matzke and Nabane 1996). To what extent CAMPFIRE has reached that objective is debated. Taylor (1995) argues, for example, that for many districts, local communities remain mere recipients of an annual handout from wildlife utilization. Furthermore, it has been pointed out that the main focus of the CAMPFIRE program has been creating economic incentives rather than enhancing social empowerment (Steiner and Rihoy 1995).

A component of CAMPFIRE is the formation of appropriate institutions under which resources can be legitimately managed and utilized by the communities. The management authority is devolved from the central government to the Regional District Councils, i.e. the local level of government, but not to the community *per se*. Many maintain that this has proved quite problematic (Hasler 1996). The official aim of CAMPFIRE is to devolve resource rights to the lowest possible level. Thus, having the locus of power at the district level may contradict the aims of CAMPFIRE. Hasler (1996) maintains that this is at the heart of many of the problems related to the distribution of benefits and resource management. For example, in the first years of CAMPFIRE, Thomas concluded that little of the income generated had been returned directly to the village people (Thomas 1991 quoted in IFAD 1995).

CAMPFIRE's approach is built on the understanding that a long-term strategy for biodiversity conservation must include the sustainable use of wild species as a key component (Adams and McShane 1996). Much of the success of CAMPFIRE is directly linked to the high monetary value of the wildlife in safari or trophy hunting (du Toit et al. 1996). In the period from 1989 to 1993, 92% of project revenues were generated from safari hunting, of which a full 64% came from elephant hunting (Steiner and Rihoy 1995). The potential to generate funds from trophy hunting has been a central element in the CAMPFIRE approach.

The profits generated from wildlife utilization can be used for general communal benefits or be distributed to individual households. CAMPFIRE requires that a minimum of 50% of total revenues must be distributed back to the producer community, i.e. to the community on whose land the wildlife dwell. In the past there have been some problems with funneling benefits to the communities i.e. from the district councils to the villages,

and it has been noted that often little money found its way back to the villages or the individual households. These problems have to some extent been overcome in the program (Steiner and Rihoy 1995).

CAMPFIRE represents a great improvement in wildlife resource management from the colonial era practices of disenfranchising rural people from the use of wildlife resources. Furthermore, CAMPFIRE can be seen as an attempt to create an integrated conservation system aimed at abolishing the colonial legacy of hostility among farmers towards wildlife conservation (Hill 1991). However, the project has highlighted some of the problems in generating local participation in wildlife projects in Africa. Adams and McShane (1996) point out that few people below the District Councils take part in the debates over how money should be spent and as a result people in villages still do not feel that wildlife belongs to them. As mentioned before, there have been various problems with the redistribution of funds from the district councils to the villages, and some wards have received nothing at all.

The results from the CAMPFIRE vary from district to district in terms of differing in implementation approaches and level of benefits reaching the communities. However, experience has shown that the areas where benefits have reached local people, there is a marked improvement in the exercise of responsible wildlife management and the number of poaching incidents has declined (Mbanefo and Boerr 1993).

3.4. CONCLUSIONS

Owen-Smith (1993) argues that many well-intentioned wildlife conservation projects have failed in the past because the project initiators have sought people's passive support and left conservation action to government or NGO outsiders. Similarly, Bell (1987) criticized many of the past revenue-sharing schemes in conservation projects for degrading people by treating them as a nuisance being bribed to keep quiet.

Previous wildlife projects in Africa emphasized the need for compensation, e.g. for crop damage and livestock predation, often in the form of community development projects (Steiner and Rihoy 1995). Over the last 10-15 years various initiatives have emphasized more-active efforts to devolve power and responsibility for resource

management to the community and give local people a larger role in the generation and distribution of benefits (IIED 1994). To establish the crucial link between wildlife conservation and benefits, an element of proprietorship has been introduced with the basic assumption that a sense of ownership will strengthen the link between benefits and the resource.

A central element in wildlife management schemes in southern Africa has been the search for appropriate forms of institutions. The ADMADE program in Zambia uses the traditional authorities, i.e. the local chiefs, as the institutional link between the local level and government wildlife departments. Gibson and Marks (1995) point out that such solutions have proved highly problematic and that the chiefs used these initiatives to secure more power and resources for themselves rather than to facilitate local participation and wildlife conservation. Similarly, the approach used in the Zimbabwe CAMPFIRE project is likely to remain contentious as the project designs opt for reliance on the Rural District Councils as the appropriate authority over the local communities (Steiner and Rihoy 1995). Gibson and Marks (1995) remain skeptical of the southern African participatory wildlife projects and maintain that these projects have some flawed assumptions regarding people's perceptions and that inappropriate management institutions have been established, failing to create the link between conservation and individual behavior.

An important question in this regard is how to define the community level and consequently what represents a local resource management institution. Is it the traditional authorities, the local or regional government, the villages or the communes? Essentially, Zimbabwe, Zambia and Namibia have all used different approaches to develop local institutions for wildlife management. To what extent the different approaches will provide the appropriate form of decentralization over wildlife rights and establish a feeling of ownership in the communities and the individuals within them is open for debate. The Namibian approach to local institutional building will be further explored in the case study presented in chapters 4 and 5.

It can be concluded that the critical factor in CBNRM programs is that rights, responsibilities and benefits flowing from the wildlife resource are clearly linked in people's behavior. How exactly to establish those links remains elusive. Steiner and

Rihoy (1995) point out that in fact the greatest challenge to CBNRM programs is the establishment of a management framework that ensures communities have regained control over their resource.

In general, one can conclude that in areas where wildlife is an appropriate land use option, a real new contribution to participatory sustainable development can be made (IFAD 1995). The basis of sustainable development in the African context is to fulfill human needs while reconciling and integrating conservation and national economic development as well as local human development. Adams and McShane (1996) point out that in terms of Africa's wildlife, the ethic of sustainable development means that conservation organizations that once focused solely on animals must now fit people into their equations. With its increasing human poverty and extensive wildlife resources, Africa presents the world's greatest challenge for integrating these objectives. CBNRM projects represent, however, an opportunity to empower rural people in Africa to take charge of their own development and management of their own resources, for their own benefit.

CHAPTER 4
CASE STUDY: THE NAMIBIAN CBNRM CONTEXT

The aim of this chapter is to provide the general background and context of the CBNRM approach in Namibia. The evolution of a new policy and legislation is examined, including the factors that influenced their formation. The key concept of a 'conservancy' is explored as well as the possibilities its establishment opens up for rural communities. The main sources of the benefits from community-based wildlife management will be reviewed and their importance examined in the overall structure and functions of the program.

This chapter is based mainly on a review of secondary documents from Namibia, e.g. various articles, policy documents and policy discussion papers as well as project proposals and evaluation reports. In addition, this section incorporates insights gained by the author from interviews conducted with government officials at the policy level and with senior NGO staff.

4.1. BACKGROUND TO THE COUNTRY

Namibia's landbase covers 824,269 km^2 in the southwest tip of the African continent. The country shares borders with South Africa to the south, Botswana to the west and Angola, Zambia and Zimbabwe to the north. The population is small, with only 1.6 million inhabitants. This makes it one of the most sparsely populated countries in the world with about two inhabitants per square kilometer (UNDP 1998).

Namibia is a country with vast open spaces, great natural beauty and a rich variety of wildlife. Wildlife occurs in varying density throughout Namibia. The diversity of vertebrate species includes all of the 'big five', i.e. lions, leopards, elephants, rhinos and buffaloes, as well as many other species e.g. various antelope species, zebras, ostriches, hippos, and a great number of bird species. There are three major vegetation zones: desert along the western coastal plain and in the south; savannas in the central and the north central plateau, and woodlands in the wetter northeast region of the country. The latter is also the area with greatest diversity of fauna (Ashley and Barnes 1996).

Namibia is the driest country in Sub-Saharan Africa, and, thus, much of its terrain is desert or semi-desert with frequently occurring droughts (Barnes and Ashley 1996).

Rainfall varies from virtually none in the desert strip along coastal areas, up to a maximum of 600 mm/yr in the northeast, but overall the precipitation in Namibia averages 100-250 mm/yr (Ashley 1995). The rainfall season in concentrated in two to four months per year, during the period January-April but this is also the hottest season, resulting in high evaporation of water (UNDP 1998). This makes water one of the scarcest resources in Namibia.

4.1.1. People and settlements

Formerly known as South-West Africa, Namibia became a German colony at the end of the 19th century, but during the First World War, German occupation ended and the country came under South African rule. The country gained its independence from South Africa in March 1990 and is today a democratic republic. The government is presently run by the SWAPO party (South West Africa People's Organization). Prior to becoming a political party, SWAPO was the rebel group fighting for Namibian independence.

The country is inhabited by at least 11 indigenous ethnic groups. The biggest ethnic group and almost half of the total population are the Owambos. Other ethnic groups include Kavango, Herero, Damara and the San people, better known to some as Bushmen. Around 85,000 or about 5.3% of the total population are whites of European descent.

The allocation of land and the settlement pattern in Namibia is a major legacy of the apartheid system. The majority of the population, or 70%, lives on the communal lands, covering about 41% of the country (Figure 4.1). The communal areas are the legacy of the homeland system of the South African government. Essentially, black people were moved from prime agricultural areas to marginal lands in the north of the country, while white farmers took over the land best suited for agriculture. Today 44% of the country belongs to white commercial farmers, who in turn make up only one percent of the population (Ashley and Barnes 1996). Presently, communal land remains state property but rural residents have user rights to the natural resource such as grazing. This has created highly skewed income generation and land management opportunities as well as tremendous stress on natural resources in the communal lands.

4.1.2. The Namibian economy

Most of the population in Namibia lives in the communal rural areas and depends heavily on natural resources for subsistence, particularly agriculture and livestock, which are the main sources of employment and livelihoods (UNDP 1998). However, the GDP per capita is relatively high, amounting to 1,984 US$ in 1997, and results in Namibia ranking among the world's 'middle income countries' (UNDP 1998). This high average per capita income sheds little light on the actual situation in Namibia. A century of colonial rule and apartheid has created a dual economy which still prevails. The United National Human Development Report (UNDP 1998) notes that Namibia is a country of extreme inequalities and low human development for the majority of its people. When the GDP per capita is further analyzed, it also reveals that the richest 10% of the society receives 65% of the income (UNDP 1998). Moreover, the top one per cent of the population has a total annual household income that exceeds the total income of the bottom 50% (Ashley and Barnes 1996).

Besides agriculture, the main sectors contributing to the Namibian economy are mining, fisheries and tourism. Mining of various stones, metals and minerals is the largest contributor to both GDP and the greatest source of foreign exchange earnings, contributing 16.7% to the GDP in 1996 (UNDP 1996). Tourism is presently the third largest foreign exchange earner, after mining and manufacturing, contributing about 5% to GDP and 12% to foreign exchange earnings. Tourism receipts were valued at almost N$[1]800 million in 1996 and created over 10,000 direct jobs (Ashley 1995). About 500,000 thousand tourists visit Namibia annually and the number is increasing at around 15% per year (MET 1998). Recent development strategies for the country, therefore, put great emphasis on tourism development. The recently published poverty strategy for the country emphasized, for example, that the main sectors which are likely to create significant employment in the next ten years are the fishing industry and tourism (UNDP 1998).

[1] Mid-year 1999, CAD$ 1 = N$ 4

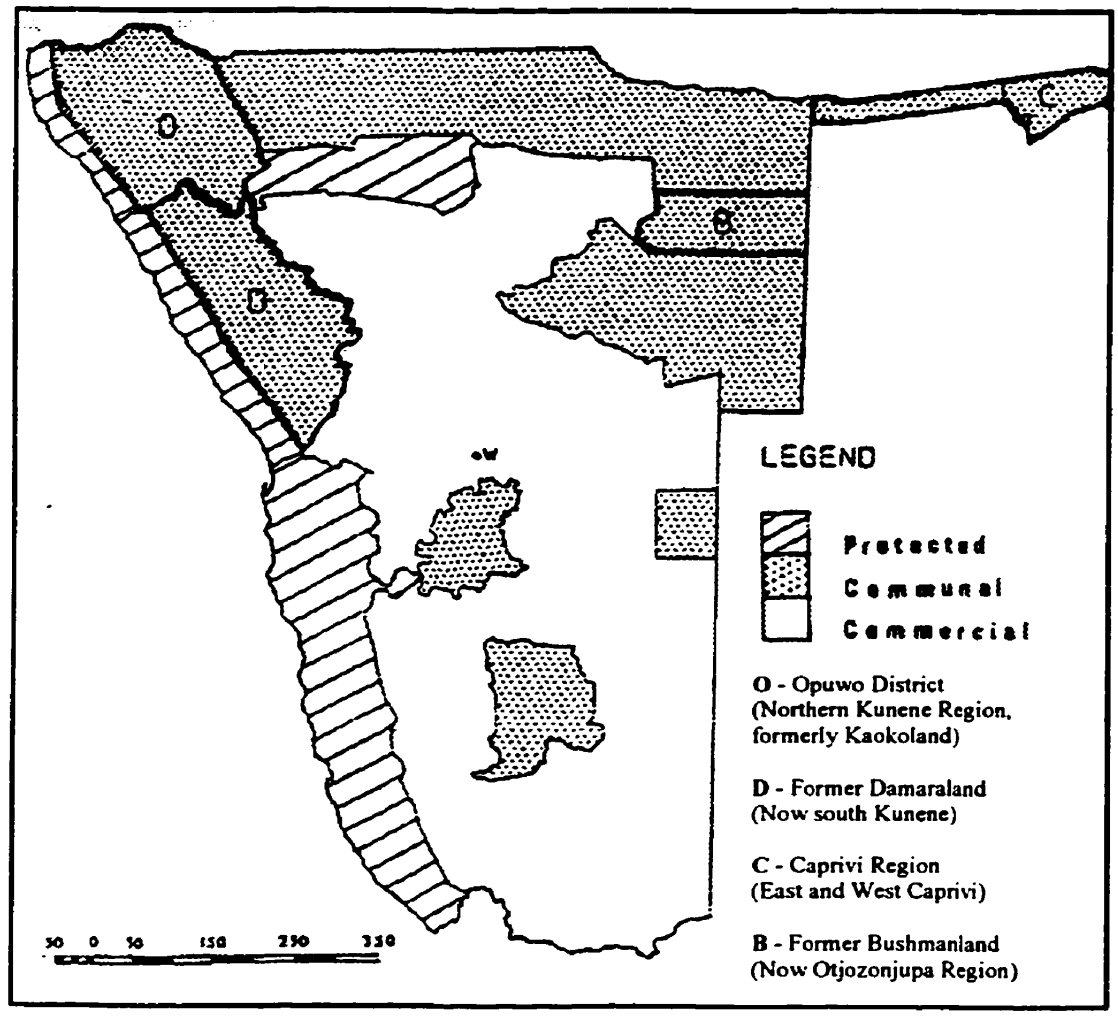

Figure 4.1. Different types land uses in Namibia.

The most important natural assets for developing the tourism industry in Namibia, i.e. wildlife and wilderness, are to be found mainly on the communal lands in the north of the country. This is important, since few other opportunities for employment creation exist in these areas besides subsistence farming. The living standard on these communal lands is low and a population growth of 3% /yr is creating increasing pressure on the natural resources (Jones 1998). The UNDP Human Development Report for Namibia 1998 concludes that there is an urgent need to alleviate poverty and improve welfare in these areas. With few alternative development opportunities, the presence of wildlife and the opportunity for nature-related tourism represents perhaps the one viable means to diversify the rural economies (Brown and Jones 1998). Tourism is the only international

industry where the customer travels to the product and lack of modern development can be an asset (UNDP 1998). Thus, in recent years, the focus of rural development in Namibia has increasingly shifted toward strategies intended to integrate wildlife-based rural development with nature conservation in communal areas.

4.2. WILDLIFE CONSERVATION

Protected areas in Namibia cover about 13.5% of the country's surface area (Brown and Jones 1998). These include the well-known Etosha National Park in Northern Namibia and the Soussuvlei Sand Dunes Park on the southwest coast. Protected areas only partially address the need for conservation of wild animals in Namibia. Presently, most of the wildlife exists on commercial game ranches and on communal lands (Jones 1995). For example, about 75% of the country's elephant population spends most of the year on the communal areas, outside game reserves (MET 1995). Due to the arid climate and environmental condition prevailing in Namibia, wildlife moves over large tracts of land in search of water and fodder (Jones 1995). This fact has had major implications for the development of wildlife conservation strategies.

A similar pattern of conservation initiatives emerged in Namibia during colonial times. First under German colonial control and later under South African's system of apartheid, the government established game reserves without consulting local people or giving any recognition to their needs (MET 1995). This resulted in the imposition of unjust and restrictive laws and a centralized control of wildlife as a resource (Brown and Jones 1998). By the1960's, all wildlife had become state property and could only be used under strict government supervision (Jones 1995). This policy resulted in the alienation of the black rural farmers from wildlife and kindled conflicts between rural people and conservation authorities (Brown and Jones 1998).

A landmark policy decision was made in 1967 when the South African government gave conditional use rights over wildlife to white commercial farmers (MET 1995). Prior to that the commercial farmers had little incentive to have wildlife on their land since it primarily represented competition with their livestock for grazing, and therefore not a source of benefits. The new policy, and subsequent legislation in 1975

gave commercial farmers rights to use the game on their farms to derive an income, so long as they met certain conditions, mainly related to fencing of their lands. The commercial farmers could now undertake various economic activities such as the capture and sale of game to trophy and sport hunters, use of cull game for meat, or use their farms for non-consumptive tourism (MET 1995).

The new policy regarding wildlife on commercial farms in Namibia yielded several important results. First, it resulted in a major growth in the game-farming industry such that it now contributes large amounts to the national economy. Second, wildlife numbers increased on commercial lands. The number of game species increased by 44% over a twenty-year period according to a survey conducted in 1972 and 1992 (Barnes and de Jager 1995). Some game farmers are reintroducing species such as elephants, rhinos, and lions to the commercial farming areas after decades of absence (Jones 1995). Furthermore this development has required little financial and technical support from the state (MET 1995). The new policy provided farmers with incentives that shifted their choice domains, and made wildlife utilization and management a realistic and profitable land use option.

The opposite development occurred on communal lands. During the apartheid period, no positive changes were made in wildlife legislation for the inhabitants of the communal areas. Essentially, most communal areas experienced a major decline in wildlife numbers, sometime to the brink of extinction (MET 1995, Ashley and Barnes 1996). The decline in wildlife numbers was mainly been due to poaching, both by local inhabitants and outsiders as well as conversion of habitat to agricultural use. Jones (1995) maintains that in the past, wildlife has been viewed by rural residents as state property, creating an open-access situation that promoted illegal use of wildlife. Jones (1995) points out that this attitude and other key factors such as poverty and population pressure with an increasing need for land have in most cases appeared to outweigh any conservation ethic among rural people.

When Namibia gained its independence, there were ample reasons for developing new policies. First, there was an urgent need for rural development in communal areas. Second, new approaches to wildlife conservation were needed, given the overall decline

in wildlife numbers. The search for a way to integrate these objectives has brought wildlife utilization to the center of Namibian conservation and development strategies.

4.2.1. The emergence of integrated development and conservation in Namibia

The Namibian approach to CBNRM has been developed over the last fifteen years. The design, planning and implementation of the approach have been influenced by a number of external and internal factors. First, the experience of a number of pilot projects in Namibia has generated valuable lessons. Second, experience of neighboring countries with similar programs such as CAMPFIRE in Zimbabwe has provided valuable input. Third, the lessons of common property resource management reviewed in the last chapter provided the theoretical framework upon which the Namibian CBNRM approach is based (Jones 1998). These sources have contributed to the formation of a CBNRM program that is uniquely Namibian.

The Namibian NGO *Integrated Rural Development and Nature Conservation* (IRDNC) has played a central role in the development of the CBNRM approach in Namibia. IRDNC has as its central objective to link conservation and sustainable wildlife and other natural resource use to the social and economic development of rural communities (IRDNC 1995). The emergence of community-based approaches to wildlife conservation in Namibia started with IRDNC's initiatives in the Kunene region in 1983. These initiatives originally started with the involvement of the traditional authorities and other community members in the establishment of a system of Community Game Guards (CGG) and the establishment of revenue-sharing mechanisms for tour operators in certain areas. These initiatives will be discussed in more detail in the next chapter. Such pilot projects yielded positive results and game numbers in the Kunene region started to rise (IRDNC 1995). Although highly contentious within a country ruled by apartheid, these initiatives later triggered expansions of the concept of community participation in conservation.

When Namibia gained its independence in 1990, the field was open to the introduction of new ideas about conservation and natural resource management (Jones 1998). The new democratically elected government strongly emphasized abolition of the discriminatory policies of the apartheid era, poverty alleviation in rural areas and political

decentralization. Moreover, the new emphasis in conservation that was emerging in other parts in Southern Africa, and elsewhere, resonated with these priorities of the new government. The introduction of CBNRM as a strategy could be seen as a rural development program that addressed the importance of wildlife conservation and emphasized increased local participation (Jones 1998). Furthermore, the lack of resources for conservation authorities adequately to patrol vast and inhospitable tracts of land and enforce conservation measures was a strong practical incentive to try alternative approaches to conservation (Jones 1998).

In the search for appropriate solutions and policy designs to promote conservation on communal lands, the Ministry of Environment and Tourism (MET) and IRDNC conducted a series of survey studies in Northern Namibia in 1992-94 (Jones 1992, Brown and Jones 1994). The surveys indicated that rural people had a deep-rooted conservation ethic with respect to wildlife, an ethic that IRDNC had earlier built upon in its community game guards program. People were concerned that their children and grandchildren would not be able to enjoy wildlife and expressed a concern about the disappearance of wildlife in their areas (MET 1995). An important finding in the studies was the fact that rural people were not opposed to the conservation of wild animals, but did oppose the application of conservation practices of the past (Jones 1995). People viewed the old practices as 'colonial conservation' (MET 1995).

The results of these surveys as well as a number of ongoing IRDNC pilot projects in the Kunene area helped to bring such lessons back into the development of the policy and legislation taking place at the national level. It is stressed by the designers of the Namibian CBNRM policy that the development of the policy and legislation was grounded in grass-roots participatory experience and not the mere product of theorists and planners who were removed from practical implementation issues, or imposed by donors or international conservation agencies (Brown and Jones 1998).

It was realized that to carry the community-based initiatives further as a meaningful approach to conservation and development in rural areas, local communities would have to have sufficient incentives to manage their resources sustainably. This could only come about with policy and legislative changes thus ensuring political support for the initiatives (Hagen et al. 1998). In 1995, a new policy framework on wildlife utilization and tourism

on communal land was introduced, thereby laying the ground for future development of the CBNRM approach in Namibia.

4.3. THE PRESENT POLICY ENVIRONMENT

The new policy framework was the outcome of a series of developments, and cooperation among key NGO people and officials within government. While the policy provided a framework to work within, it was recognized that on its own, the framework could not bring about sufficient change and the relevant legislation had to be changed as well (Jones 1995). After some delays, changes were made to the legislative framework, including in 1996 the *Nature Conservation Ordinance* (4 of 1975) which was amended to extend rights of wildlife utilization and benefits to people living on communal land (MET 1995).

4.3.1. The new policy and legislative framework

The new policy and legislation provided a legal framework to enable rural residents to sustainably utilize wildlife in their areas and attain the benefits from that use. Several difficult questions had to be addressed during the design phase of the program. These related to how ownership of mobile wildlife resources should be defined, and how the state could regulate the use of game while devolving maximum responsibilities to local communities (MET 1995). The answer to these questions was generated by the introduction of the concept of 'conservancies' on communal lands. The idea of conservancies was first introduced in 1992 in relation to wildlife utilization by commercial farmers. This allowed them to pool their land for the purpose of wildlife management. With the 1996 legislative amendment to the Nature Conservation Act, this system was extended to include farmers on communal land. The process leading up to the establishment of conservancies is outlined in figure 4.2.

A 'conservancy' in the communal areas context consists of a self-defined community, or a group of communities, within a defined geographical area that jointly manage, conserve and utilize wildlife and other natural resources (MET 1995). The conservancy is thus a concept that includes both a spatial and social dimension. The

defined membership is the social unit and the defined geographical area is the spatial ecological management unit (Brown and Jones 1998).

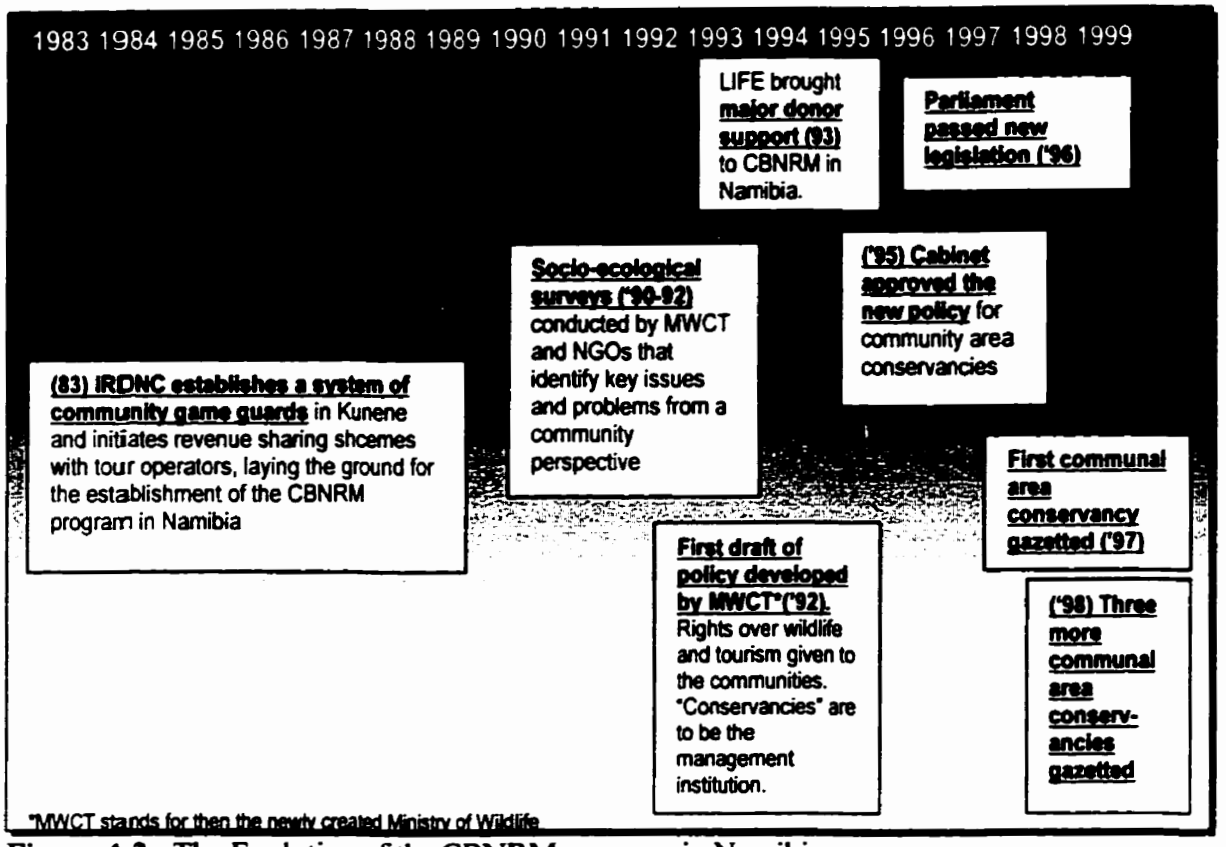

Figure 4.2. The Evolution of the CBNRM program in Namibia.

The main policy objectives, as stated in The Ministry Policy on Wildlife Management, Utilization and Tourism in Communal Areas (MET 1995), are to:

- establish an economically viable system of wildlife utilization in communal areas;
- remove discriminatory provisions of the Nature Conservation Ordinance (No. 4 of 1975), by giving conditional and limited rights over wildlife to communal area farmers that were previously only enjoyed by commercial farmers;
- link conservation with rural development by enabling communal farmers to derive a direct financial income from the sustainable use of wildlife and from tourism;

- provide an incentive to rural people to conserve wildlife and other natural resources through shared decision-making and financial benefit; and
- allow rural communities on state land to undertake tourism ventures, and enter into cooperative agreements with commercial tourism organizations to develop tourism activities of state land.

The above objectives are oriented toward solving many of the past problems and inequalities by consideration of the goals of development and conservation simultaneously. The new policy is meant to benefit the communities but at the same time the government is relieved of many of its management and enforcement burdens. The aim is that the conservancies are operated and managed by the conservancy members with minimal input or interference by the state. As time passes the role of the state should become less and less important. As the conservancies get fully developed and operational the role of government is meant to be limited to the provision of technical support and enforcement services. The government, however, will always have the right to revoke the user rights of the community if it deems the rate of use to be unsustainable and the management irresponsible (MET 1995).

The new policy does not automatically give rights over wildlife to communities in communal areas (MET 1995). The requirements by the MET for communities to establish a conservancy include that they:

- have a defined membership;
- do not exclude anyone on the basis of race, gender or age;
- have a legal constitution with the working rules for sustainable management; and
- have defined boundaries.

The conservancy's constitution must provide for sustainable management of the wildlife, and the management committee must demonstrate the ability to manage funds. Furthermore, there must be no boundary disputes with adjacent communities, i.e. the spatial resource management units must be clearly defined (GRN 1996). The government does not lay down any rules for how the benefits are to be spent or distributed, but the

management committees must present the MET with an equitable distribution plan that is based on input from their communities. Essentially, the communities must demonstrate their sense of responsibility and a will to take on the task of wildlife management before user rights are devolved to them by the government.

At the core of the conservancy concept is the conservancy management committee (CMC). The legislation requires a representative management committee for the conservancy to be elected by community members. The role of the conservancy management committee is laid out in the legislation as follows: "a conservancy committee shall on behalf of the community in a conservancy or in respect of which a conservancy has been declared have rights and duties with regard to the consumptive and non-consumptive use and sustainable management of game in such conservancy, in order to enable the members of such community to derive benefits from such use and management" (GRN 1996).

Given the wide diversity of ethnicity, social organizations and spatial settlements of rural communities in Namibia, it was recognized in the beginning that the new conservancy system had to be flexible. The policy, therefore, does not lay down a blueprint for establishing a conservancy, but rather establishes some basic rules and principles that communities must follow in forming a conservancy. Thus, a conservancy could be a large group of people on large tracts of land or small group of people on small tracts of land and anything in between (Jones 1995). It is important to note that the conservancies are not protected areas per se, but rather areas where wildlife management is integrated with other land uses.

Jones (1998) points out that the conservancy approach provides a framework and incentives to which communities can voluntarily respond and thereby actually have a choice about whether to participate (Jones 1998). The incentives come in the form of conditional rights to manage and benefit from the resource. The rights relate to the various uses of wildlife in the defined areas (Figure 4.3). For example, the communities get tourism and trophy-hunting concession rights that they can allocate at will. Communities also have the rights to engage in other wildlife uses, such as buying and selling live game and conducting community hunts of wild species (MET 1995).

1. RESPONSIBILITIES	• Sustainable use/conservation of wildlife • Wildlife monitoring (Community Game Guards) • Poaching prevention • Financial and administrative accountability
2. RIGHTS	• Conditional rights to manage and use wildlife in their areas • Rights to negotiate with tourist operators and trophy hunters and allocate concession areas • Rights to retain all revenues from wildlife management
3. BENEFITS	• Financial benefits from all income-generating activities in the conservancy • Employment creation from tourism ventures and wildlife management • Non-financial benefits, social empowerment, enhancing cultural benefits of wildlife

Figure 4.3. Responsibilities, rights and benefits for communities as implied in the new wildlife policy.

Although a second management institution, the Wildlife Council, was provided for in the policy and legislation, to date none has been formed. The provision of the Wildlife Councils was an effort to aprease interests of parties who did not believe in the ability of communities to manage wildlife sustainably. The Wildlife Councils were to be government bodies which could co-opt community leaders and make decisions on behalf of residents without double-sided accountability systems (Jones 1998). Thus, the Wildlife Councils would not represent CBNRM as defined and discussed in previous chapters, since they would essentially seek the passive participation of the community. Nevertheless Wildlife Councils might in some cases present a useful avenue for communities which do not find themselves in circumstances enabling the establishment of a conservancy.

To date, four communal area conservancies have been gazetted The Torra and ǂKhoadi //Hoas conservancies in Kunene, The Salambala conservancy in Caprivi, and the Nyae Nyae conservancy in Bushmanland. Together these new areas cover about 1.7 million hectares (Brown and Jones 1998). As of mid-year 1999, twenty communities are working towards establishing conservancies. These areas cover more than 6,000,000 hectares with about 70,000 inhabitants (WWF 1998). The momentum for CBNRM is high in Namibia, both among program implementers as well as communities, and there is great optimism for the future of sustainable CBNRM in rural Namibia.

4.3.2. Introduction of a new common property management institution

The CBNRM approach in Namibia entails the introduction of a new social institution within the communities. The conservancies are essentially a common property

institution with vested rights and duties for the sustainable management of wildlife in a particular area.

In the past, the traditional authorities in communities, namely the headmen, were responsible for wildlife 'management' in their areas. This involved decisions about when, where, what and whether to hunt. After decades of colonial rule and apartheid policies, the systems of traditional authorities in many rural areas in Namibia have become weakened, with respect both to wildlife and other spheres of the community. When the South African government imposed the homeland system in Namibia (or as it was then, Southwest Africa), they in many cases appointed headmen through whom they ruled. This led to decline in community acceptance of their authority. Also, the relocation of people by the government to new areas led to conflicts between headmen, as two or more headmen claimed authority over the same area. However, in some areas the headman system is still strong, but still lacks many of the structures that are needed for modern natural resource management, e.g. financial management and accountability.

Because Namibia was only recently granted independence, regional and local government structures are relatively undeveloped. This situation is exacerbated by the vast distances and inaccessibility of many communities. The CBNRM approach and participatory development theory emphasizes the need for planners to work directly with the affected communities and for the unit of resource management to be the same as the one which receives the benefits. To reach the desired policy goals of linking conservation and development, and empowering communities in Namibia, it was deemed impractical to rely on existing community or local government structures. As Jones (1998) points out, the conservancy approach works directly with the communities and not through existing levels of government and bureaucracy.

The concept of the conservancy as an institution, and the general guidelines for its establishment, are laid out in the policy. However, the specifics of the implementation are up to the communities to decide upon. Most importantly, the policy does not define the concept of 'community', but leaves it up to any group of people to define the community. It is based on a mutually recognized ability and desire to cooperate towards a community goal of benefiting from wildlife management. This is important in ensuring participation,

acceptance and capacity-building in the communities, although it has created a number of problems.

For example, as a result of establishing a conservancy, there is a change in power relations, and new people within the communities gain considerable power in terms of decision-making and financial matters. This can lead the traditional authorities to perceive the changes as a threat to their power. Conflicts between individual community members have also occurred, and the introduction of a new institutional player in the rural development process has met with opposition from some regional governments, which had been opposed to the establishment of a conservancy. In the process of establishing a conservancy, great care needs to be taken to integrate these different interests so that the various stakeholders do not feel left out of the process, thereby jeopardizing the integrity of the management unit and opening the way for future conflicts.

By neither pre-defining the community nor relying on existing management structures, decision-makers slowed the process of implementing the CBNRM program in rural areas. However, by using an open, flexible approach to institution-building, it is easier to attain a maximum level of community participation and community empowerment, which is at the heart of an effective CBNRM approach. As pointed out in the last chapter, working through traditional authorities or local government structures has created a number of problems in Zambia and Zimbabwe, particularly with regard to distribution of benefits and participation in the communities. Furthermore, by redefining the boundaries of communities and bringing people together who have a desire to cooperate, a number of problems inherent in the past are being overcome. It is hoped that in the course of time the conservancies will become credible institutions upon which further development cooperation in these areas can be built.

For example it is hoped that as a management institution, the conservancies can in the future be utilized for the management of other natural resources such as forests and plants, water resources, inland fish and game birds (Hagen et al. 1998, Corbett and Daniels 1996). This would allow for a truly integrated community resource management on communal land. Wildlife was in many ways the ideal resource with which to start to build the CBNRM approach in Namibia. It was a resource people had become largely

alienated from, but also one shown to have great economic value. A further advantage was that wildlife utilization can provide quick economic returns, thus creating the necessary commitment in the communities and at the policy level for the philosophy underlying the CBNRM approach.

4.3.3. Devolution of property rights

A central element in the Namibian conservancy approach is the systematic devolution of property rights over wildlife to rural farmers. When communities have defined their membership, negotiated boundaries and met the other necessary requirements for being legally gazetted as a conservancy, the government assigns conditional property rights, or use rights over the wildlife resource to the new management units. These property rights involve a bundle of rights and responsibilities as summarized in table 4.1. The idea is that by devolving property rights to a defined group of people with clearly defined use rights and the rights to benefits, people's attitudes with respect to resource stewardship will change.

In the Namibian approach, communities should be enabled to make their own decisions about how revenues are distributed and spent. It was feared that if this were not the case, then the conservancies would be seen as a disguised form of state control and consequently there would be limited empowerment for the communities (Jones 1995). Giving conditional ownership of wildlife to communities through the conservancy constitutes an important means for community members to see themselves as holders of rights and the bearers of responsibilities (Corbett and Daniels 1996). Thus, a new property right regime is meant to play a central role in the Namibian approach, and provide the link between the benefits from the resource and the responsibility for their management and conservation.

The conservancy system is fundamentally a partnership venture between the MET and rural people on communal state land. They share responsibilities for protecting and managing natural resources and share the resulting benefits. Although the MET devolves user and management rights to the communities, it still holds the power to withdraw all rights to game utilization from a conservancy if the conservancy shows itself to be irresponsible in the use of wildlife (MET 1995). Furthermore, the Ministry reviews

hunting quota decisions before issuing permits. The final decision on concession rights also rests with the Ministry and the community must apply to the MET for a 'permission to occupy' (PTO). However, after a conservancy is proclaimed, the Ministry can no longer assign PTO's or concession rights without the community's agreement. The devolution of property rights, therefore, is not complete. A co-management regime is being created where the state and rural communities manage the resources, to achieve community goals, as well as broader national policy goals.

There are several unanswered questions regarding the actual land tenure in Namibia. Communal land is essentially state land and the communities have the rights to utilize the natural resources. In the case of wildlife, only the rights over the wildlife resource are being devolved to the conservancy. The conservancy will not hold other forms of property rights or make land claims on the defined territory. This is deemed by many to be problematic and to hinder further development of sustainable use of natural resources. In particular, it is argued that the conservancies should get the right to exclude non-members from using the land, something which is currently not the case. Presently, a new Communal Land Bill is being formulated, and much will depend upon whether it includes provisions to allow for communal ownership of land.

4.3.4. The implementation of the new program

A program like the CBNRM approach in Namibia does not turn into action solely by stating noble objectives in policy documents and government legislation. As Ashley points out (1996), the creation of proper policy incentives for advancing user rights and benefits from resources are insufficient without the skills and institutional capacity for resource management at the community level. After years of having little control over their own affairs, many community institutions are weak, and the necessary skills and knowledge for resource management and tourism development are absent.

Addressing the need for capacity-building and training in the rural communities has been an element of central importance in the CBNRM program. This includes, for example, training in wildlife management, accounting for benefits and management of their distribution, skill development for negotiating with private tour operators, and developing and running tourism ventures.

IRDNC has been working with communities in the Kunene since 1982. The work has in recent years come to focus mostly on assisting the communities in working toward establishing a conservancy. The role played by the IRDNC is mainly facilitative, and the communities steer their own course and set their own agendas. IRDNC provides assistance in facilitation training and institutional capacity-strengthening as well some direct financial assistance to the communities.

Lack of appropriate NGOs and institutional capacity in Namibia to implement CBNRM has been identified as one of the weaknesses of the program. At the beginning the IRDNC was the only appropriate NGO (Hagen et al. 1998), but recently an increasing number of Namibian NGOs have been getting involved with the CBNRM program by taking part in mobilizing and training in rural communities. This has mainly been made possible through funding from USAID and the World Wildlife Fund (WWF).

The WWF, through the USAID-funded *Living in a Finite Environment Project,* (LIFE) has provided extensive levels of training and financial and technical support to the Namibian CBNRM program over the past five years. Moreover, the LIFE program has functioned as an umbrella organization for the CBNRM program at the national level, coordinating activities among the various stakeholders. The national program is a blend of broad partnerships between government, donors, NGOs, and rural communities. Recently the CBNRM Association of Namibia (CAN) was established to take over this role and build up further institutional capacity for implementing and coordinating the CBNRM program in the future.

The main donors in the CBNRM program have to date been USAID and WWF International. Altogether over US$ 15 million over a period of 7 years have been injected into the CBNRM program at various levels (WWF 1998). IRDNC has received funding from various donors but most importantly WWF International. Both organizations are taking great care to ensure that the levels of funding communities receive is sustainable, i.e. that when the conservancies are established and functional, they should be able to cover their own operating costs.

Despite high levels of external funding, care has been taken to ensure that the ownership of the CBNRM process and program remains Namibian, and reflects Namibian goals and objectives. When donors were brought into the program, the policy

already formed and the agenda set (Brown and Jones 1998). The process is not driven by government, donors or foreign conservation NGOs, although external assistance has been very important (Jones 1998). However, it remains clear that donors have their own agendas and want to see progress in relation to the funding provided. They often force things to happen at a greater speed than might be desirable.

4.3.5. Major challenges in policy implementation

Despite successes, the Namibian program has met with many challenges and obstacles both in getting the policy framework approved as well as in implementation of the program at the local level. CBNRM represents a change in power relations between the state and the communities, and therefore this change met with some resistance from within government. Even though the new policy was being pushed by government, the government is not a monolithic entity. Many government officials responsible for wildlife management in the Directorate of Resource Management within the MET were opposed to the new policy. Many of them had a hard time coming to terms with the idea that communities could actually manage wildlife as a resource and advance its conservation, especially those who believed that rural people saw wildlife mainly as a source of meat. It is evident that this extreme has largely disappeared, and today there is a strong support for the program within the various ministries, although some skepticism still remains.

In the beginning there was also skepticism in the communities about the new program. Many community members had a hard time believing that the planned changes and proposed benefits would be implemented. Some saw it as yet another scheme to take their land away. This was further exacerbated by a considerable delay between pilot projects being launched and the actual legislation being passed. This made some communities question whether there was sincerity behind the assurance that rights and benefits were to follow. Presently, however, with a number of conservancies being proclaimed, the word is spreading in the rural communities about the positive things a conservancy can bring and the interest for the new program is expanding.

A major challenge at the community level has been the definition of spatial boundaries between conservancies. As laid out in the policy, this must be settled and boundary disputes solved before conservancies can be proclaimed. Often the boundary

issues between communities are highly volatile. This is due to the disruptive homeland policy of the South African government that relocated people to new areas, usually already inhabited by other people. This reaction has created some delays in the progress of establishing conservancies, particularly in getting them fully operational and getting benefits flowing. In some cases the government has made allowances for a conservancy to register without boundary disputes being fully resolved.

4.4 THE PROPOSED BENEFITS OF THE CONSERVANCIES

The Namibian CBNRM program has approached the issue of linking wildlife conservation to community benefits in a different manner than other programs in southern Africa. While the Zimbabwe CAMPFIRE program, for example, has focused to a large extent on economic benefits to communities, a major emphasis in Namibia has been placed on various non-financial benefits for communities. The non-financial benefits include a number of social and cultural benefits such as empowerment of communities, as they take charge of their own development, and increased capacity and skills as well as enhancement of the cultural values of wildlife.

An essential long-run component of the Namibian conservancy program is also its potential to create a stream of economic benefits. This is important since improved livelihoods are much needed in the communal areas. Moreover, the process of conservancy formation and the responsibilities undertaken with regard to wildlife management do involve costs for communities and, therefore, need to be balanced with financial benefits in the long run.

4.4.1. Economic benefits of wildlife utilization in Namibia

The economic potential of wildlife utilization in Namibia has provided a strong rationale for the country to extend wildlife utilization to communal areas, thus increasing opportunities for rural development and linking it with wildlife conservation. One of the key aspects of the conservancy program is its strong potential for job creation in rural areas, as well as collective income generation (IRDNC 1995).

The use of wildlife in Namibia has to date involved non-consumptive tourism such as photographic safaris, consumptive tourism such as hunting, and various direct

consumer uses of meat, skins and other wild products. Overall, non-consumptive tourism based on viewing wildlife, the Namibian landscape and areas of wilderness are the dominating means of wildlife utilization, although that varies between regions (Ashley and Barnes 1996). Much work has been done in resource economics in Namibia in recent years. Research has revealed that there is considerable room for optimizing the economic benefits of wildlife in the country, with regard to both enhancing its use value as well increasing the equitable distribution of those benefits (Ashley and Barnes 1996, Ashley et al 1994).

It has been estimated that Namibia could more than double the economic value attained from wildlife over the next 20 years (Ashley and Barnes 1996). Ashley (1995) maintains that total local earnings from tourism could triple even without an increase in the wildlife base. She points out that these potential earnings could easily outweigh the direct costs of wildlife damage incurred to farmers in the communal areas.

Wildlife densities vary within the country, and so does the potential to engage in wildlife-related development. Thus, not all areas will have as a viable option developing a conservancy based on the wildlife resource. Namibia's most valuable wildlife resources are found in or around the communal lands in the north, which are consequently the prime areas for the development of up-market eco-tourism (Ashley and Barnes 1996). The conservancies program can be instrumental in providing the appropriate channels to make the potential values of wildlife tangible for the local communities. The bulk of financial benefits made tangible to individuals and households through the new conservancy framework will likely be in the form of employment and revenue-sharing as part of tourism projects. Various other opportunities for developing income-generating activities have also emerged. This potential income, for example, can be derived from selling crafts and various tourism-related services as well as harvesting of other natural resources, such as tatching grass in the Caprivi and Devil's claw in Bushmanland.

Research has shown that wildlife utilization could potentially contribute significant amounts of money to rural households, although the significance will ultimately be based on people's perceptions rather than the actual amounts. It has been estimated that in areas with medium wildlife potential such as the Caprivi region, wildlife-related enterprises could increase average income for households from 25-50 CAD$ per year to around 120-

240 CAD$ per year, and up to around 240-500 CAD$ per year in the more sparsely populated Kunene region. Furthermore, in areas with high potential, e.g. those that are adjacent to protected areas, the benefits could reach 2200 CAD$ per household, thus making wildlife and tourism an important development strategy (Ashley and Barnes 1996). On this basis, Ashley and Barnes (1996) maintain that wildlife enterprises could make substantial contributions to household incomes, although they would not revolutionize them. Even though the income generated would not amount to much on a western standard, in places where households are strapped for cash this could prove vital.

One of the aims of the new conservancy policy is to lay the groundwork for an integrated use of wildlife with livestock and other agricultural activities. The aim is that the conservancies can practice land-use zoning and integrate different land uses. The question is not whether wildlife can provide enough benefits to become the only land-use option, but rather whether it can become a major addition to rural livelihoods and, thereby a viable component in the overall land-use strategies of rural farmers (Ashley and Barnes 1996). Ashley (1996) points out that agriculture in Namibia, including both livestock raising and crop cultivation, is the main activity displacing wildlife habitat. The conservancies emphasize the integration of wildlife with other land uses, and are thus an important strategy to develop wildlife as a complementary land use. This provides incentives to conserve habitat while maintaining livestock production, which is likely to remain the main source of livelihoods for rural households. Overall, it can be concluded that wildlife utilization can become a key strategy for biodiversity and habitat protection in Namibia. As Ashley points out (1996), once wildlife pays its way, conversion to other land uses is less likely.

At present, financial assistance from donor organizations is being provided to the communities that are working towards the establishment of conservancies as well as to the four conservancies that are already in operation. However, the underlying basis for the conservancy approach is that they will prove to be economically viable ventures in the future. Thus, when external financial support ceases, the conservancies must be able to pay for their operating costs, including the salaries for the community game guards, vehicles and other administrative costs, as well as earn benefits to be distributed in the communities. There is strong belief among program implementers that this can be

achieved and that the conservancies can function as sustainable and independent management enterprises.

4.4.2. The importance of tourism

Tourism, both non-consumptive and consumptive, is at the center of potential income-generating activities of the CBNRM program in Namibia. Most of the income-generating potentials and development opportunities in communal areas rest on tourism development in one way or another. Barnes and Ashley (1996) point out that in the arid northwestern part of the country, i.e. the Kunene, where there is low land productivity but beautiful scenery, non-consumptive forms of tourism dominate the current as well as potential economic use value. In other areas such as Caprivi and Bushmanland where land productivity is higher but with less scenic beauty, consumptive uses such as safari hunting will prove more viable (Ashley and Barnes 1996).

An important parallel development along with the CBNRM approach has been the emergence of the concept of community-based tourism (CBT) (MET 1995b). The new policy on *Community-based Tourism Development* aims at providing a framework for ensuring that local communities have access to opportunities in tourism development and will be able to share in the benefits of tourism activities that take place on their land. The CBT policy, as well as the overall tourism strategy for Namibia, recognizes that the involvement of rural communities in tourism enterprises is important (MET 1995b, MET 1998, UNDP 1998).

Ashley and Garland (1994) reviewed different strategies in tourism development in Namibia. Their study found that the development of tourism in communal areas and the involvement of local people in tourism enterprises could promote several important national objectives. These include faster economic growth in the regions, improved welfare and equity, empowerment of local people, improved resource conservation by local people and finally diversification of the Namibian tourism product, in particular by appealing to the new expanding market of higher paying ecotourism.

Table 4.1. The main kinds of possible tourism development in the conservancies (adapted from Ashley and Garland 1994).

TYPES OF TOURISM	EXAMPLES	BENEFITS
Community-run enterprises	Community campgrounds and rest camps, cultural villages, and craft centers.	• Usually generate little income for communities • Some employment creation (2-10 jobs per campsite) • Much empowerment for communities when organizing own ventures • Training and skill development in operating tourism services
Joint Ventures	Community and private sector join forces in operation of lodges. Community provides the land and the natural attraction i.e. wildlife and the private sector finances the deal.	• High income creation for communities when sharing in profits • A number of jobs created (approx. 10-15 per lodge) • Provision of skill development and tourism training for the community usually included in the joint agreement • Empowerment for communities when standing on equal footing with the private sector and participation in the management of the lodge
Private ventures with revenue-sharing mechanism	Privately run lodges that share their revenues in some way, e.g. bed night levies, with the community but not with any other form of participation on the community's behalf.	• Some income from bed night levies (usually less then Joint Ventures) • Employment creation (similar as Joint Ventures) • Limited training and capacity building in the communities • Little empowerment, the private operator remains in control
Trophy hunting	Communities sell their hunting quotas to a professional hunter who brings in people from outside willing to pay for the hunts.	• Income from selling hunting quotas • Few employment opportunities • Some opportunities for training, such as hunting guides and trackers • Little empowerment

Essentially, the new community-based tourism policy recognizes that greater benefits must be retained by the communities where tourism activities occur. Moreover, it recognizes that such revenue-sharing contributes to Namibia's national development objectives of improved equity, poverty alleviation, and sustainable growth (MET 1995b). In light of this, the new policy framework transfers concession rights for tourism activities in communal lands to the communities that have established conservancies. The communities that establish conservancies can either run tourist operation themselves or enter into partnerships with the private sector (MET 1995b) (See Table 4.1).

The different types of tourism ventures will evidently generate different forms of benefits to the communities. In the past some tour operators have entered into revenue-

sharing with the communities, usually in the form of bed-night levies. Even though they have not been obliged to do so, this has made good sense for many, from both a business as well as ethical perspective. The revenue-sharing schemes have, however, included little or no other participation on the community's behalf. With the emergence of the concept of joint venture, this has changed. The factor leading to this is that now, tour operators must negotiate directly with the conservancies, not the government, about running tourism ventures in their area. It involves negotiation whereby the community agrees to let the tour operator establish a business on locally and the community becomes a partner in the management of the enterprise through a joint management committee. The concept and operation of joint ventures will be further explored in the next chapter.

Ashley and Garland (1994) concluded that joint ventures had the highest potential to achieve greater increases in community income, skills and empowerment as well as being financially viable for the private operator. Community-based initiatives such as campgrounds could generate the same social benefits but much less in terms of revenues for the community (Ashley and Garland 1994). An enterprise run by a community or a joint venture is furthermore more likely to diversify the tourism product through its emphasis on cultural and ethical considerations (Ashley and Garland 1994). Presently, the market for high-paying nature tourism is increasing and many travelers regard community involvement as essential, having seen many communities over the world being deprived of benefits in the past.

4.4.3. The importance of non-financial benefits

It is evident that the Namibian CBNRM program has various other dimensions than the utilization and conservation of wildlife. Intangible benefits, such as social empowerment of rural communities, play an integral role in the process, both as an end in itself as well as the means to improved management of natural resources in rural areas. Intangible benefits of the CBNRM program can be defined in terms the various social and cultural benefits that result in one way or another from the conservancy formation, but do not accrue in direct monetary terms to the communities. These benefits are harder to measure than direct monetary benefits from tourism ventures or employment creation,

but are nevertheless important and accrue to individuals, the community and Namibian society as a whole.

In a country where a century of colonialism and apartheid have to a large extent disempowered rural people to manage their own affairs, this focus on intangible benefits is of great importance. Ashley (1998) points out that the CBNRM program is providing opportunities for residents to identify a common purpose and strive collectively to realize it, e.g. establishing a conservancy and developing tourism in their area while creating a shared belief that improvement in livelihoods is possible.

In her review of the intangible benefits from the CBNRM program, Ashley (1998) identifies five main categories of intangible benefits inherent in the CBNRM program:

Capacity-building and empowerment. Capacity-building in the communities to undertake wildlife management and tourism development is of central importance in the Namibian CBNRM. This emphasis works to build up knowledge, accountable community institutions and self-confidence among rural-area residents. This can be broadly defined as social empowerment. Also, rights and responsibilities are being devolved to the local level. Potentially this will provide rural residents with a sense of ownership over the resource and consequently can be seen as an important aspect of empowerment for the local community.

More secure livelihoods. By diversifying the local economies, the CBNRM program contributes toward more secure livelihoods in rural areas and increases their resistance to any threats to their livelihoods such as droughts. With additional cash income, people can secure food and other basic necessities in drought periods and afford to send their children to school. This is especially important for the lower income households that often have little or no cash at their disposal.

Cultural and aesthetic values of wildlife and local traditions. Wildlife has a strong cultural significance for many rural residents. The fact that wildlife numbers will most likely increase in the conservancies is seen as a positive aspect by many residents. Furthermore, older people want their children to be able to see wildlife in the future. Various other cultural traditions and skills such as wildlife tracking are also being revitalized.

Enhancement of the natural resource base. Wildlife numbers have increased in both the Kunene and the Caprivi regions after the establishment of the CBNRM program. This represents a social benefit for the Namibian society as well as the global community that is concerned about wildlife conservation. Furthermore the conservancy structures could likely lead to improved and more-integrated management of other natural resources in the areas.

Political, social, economic and environmental benefits at the national level. Essentially, all of the benefits above contribute to important Namibian national objectives, i.e. increased democratization, sustainable management of natural resources, rural development, and improved equity.

The central importance of women is well recognized when it comes to the management of natural resources and the empowerment and participation of women is an important factor in the CBNRM program (IRDNC 1995, Ashley 1998). Women's participation has been addressed by appointing women as community resource monitors in the project areas in Caprivi and as community activators in the project areas in Kunene. IRDNC emphasizes the enhancement of women's participation within culturally accepted framework, without imposing western conceptions of gender equality. This has to date proved successful and women's voices have become heard to an increasing extent in communities where women have traditionally been marginalized from a western standpoint.

The devolution of rights and responsibilities to communities to manage wildlife and its potential to increase community empowerment has been a central focus as a benefit in the Namibian CBNRM program. Ashley (1998) maintains that it could be argued that the opportunity to take responsibility and control over the resource and development in one's own area is in fact the most important benefit from the CBNRM program for many community members (Ashley 1998). This could mean that even in the absence of any economic benefits, communities would still regard the conservancy program as benefiting them and would participate in the conservation of wildlife and other resources on that basis. This idea deserves more attention and will be explored in some detail in the next chapter.

It can be concluded that the intangible benefits inherent in the Namibian CBNRM program are of great importance when it comes to assessing the overall benefits from the program. They are wide-ranging although hard to quantify. The overall importance of intangible benefits in relations to the financial benefits and the interrelatedness of these benefits in people's perceptions in the conservancies will be examined in more detail in the next chapter.

4.4.4. Distribution of Benefits and costs

As well as creating a stream of financial and non-financial benefits for the participating communities, the formation of a conservancy and wildlife management will also include a number of costs for the communities. These costs can be defined for the purpose of this discussion both in terms of indirect and direct costs to the communities as well as any potential negative externalities of the conservancy formation and the increase of wildlife numbers in the areas.

The costs incurred by the communities can include opportunity costs for community members. In the last few years a number of community members in many of the conservancies have spent considerable time in meetings and work on establishing the conservancies. This is particularly true in the case in Kunene where distances are great and transportation problematic (Brown and Jones 1998). Also, the conservancies will practice land-use planning and zoning in one form or another and most of them will set land aside as *Core Wildlife Areas* (CWA), or prime tourism sites where grazing and other activities will be restricted to some extent. This can potentially generate costs in terms of lost access to those resources. Furthermore, increasing wildlife numbers in the areas are likely to increase the costs of wildlife damage, although measures are being taken to reduce those damages as will be discussed in the next chapter. How the various potential benefits get distributed and perceived in relation to these costs is of central importance.

The distribution of benefits, not only between the national and the community level, but also intra-community distribution of benefits is of central importance when it comes to establishing the link between those benefits (Table 4.2) and conservation of wildlife or other natural resources. People perceive the benefits in relation to the costs they incur and determine their behavior based on those perceptions within the particular social context.

Important questions are thus raised about the manner in which the variety of benefits will be distributed within the conservancies.

Table 4.2. Benefits and costs of the conservancy and their distribution within the community.

BENEFITS - FINANCIAL	**Distribution**
Employment from various tourism ventures and the conservancy. Examples include CGG, tour and hunting guides, jobs in tourism lodges etc.	*Benefits go to individuals and their households. Distribution of employment is likely to depend on skills. This benefit is directly related to wildlife tourism in the area.*
Collective community income from revenue sharing in tourism and wildlife ventures.	*All households in the community either distributed evenly or based on certain criteria, such as number of people in households, wildlife damage incurred, etc. These benefits are directly linked with wildlife tourism or other such enterprises in the area.*
Potential income from selling crafts and services to tourists.	*Benefits individuals. Likely to depend on skills and entrepreneurial talents.*
Community development projects, such as a new school or a health clinic.	*Accrues to community as a whole or certain sectors within it, e.g. people who have children or old people. Runs the risk of not establishing the link between wildlife and the benefit, since it could be seen as a public good, and not related to individual behavior or wildlife conservation.*
BENEFITS - NON FINANCIAL	**Distribution**
Increased empowerment of the community e.g. more control over the resources such as wildlife, in the area, thus establishing a sense of ownership.	*Benefits the community as a whole but is likely to vary in importance between individuals.*
Increased numbers of wild animals in the area.	*Benefits the community as a whole, but some might even see this as a cost or a disadvantage, depending on circumstances and perceptions.*
Better management of natural resources.	*Benefits the community as a whole as well as society in general.*
Training, skill development and improved capacity in the community.	*Benefits individuals who participate in the conservancy development and get employment and training.*
Cultural values of wildlife, e.g. children will see wildlife in the future.	*Accrues to community as a whole.*
COSTS	**Distribution**
Wildlife damage to crops/food garden.	*Individuals, farms/households.*
Wildlife damage/predation of livestock.	*Individuals, farms/households.*
Wildlife damage to waterpoints.	*Individuals, farms/households.*
Increased wildlife threats to people.	*Individuals, farms/households.*
Investment of time in setting up the conservancy and related enterprises.	*Individuals, farms/households.*
Competition between wildlife and livestock for water and grazing.	*Individuals, farms/households.*
Closure of prime wildlife areas for grazing as well as restricting the collection of veldfood and firewood.	*Individuals, farms/households.*
Increased community conflict over access to opportunities and finances as well as power.	*Community as a whole.*
Too many tourists coming to the area.	*Individuals, farms/households or community as whole. Depends on perceptions and some might even see this as a benefit.*
Disturbance of traditional ways of life.	*Community as a whole, but will depend on perceptions.*

It is important to note here that communities decide themselves on how to distribute the benefits, but must provide the government with an equitable distribution plan. This distribution plan is of central importance and could eventually determine the success of the conservancy. Ashley and Barnes (1996) point out that a big part of the potential overall financial income from wildlife will never be shared equally across households because it will occur in the form of employment. However there will be considerable collective income that can be locally controlled and more widely distributed (Ashley and Barnes 1996). The benefits and costs will thus occur to different members of the community and the strategies in deciding upon the manner of this distribution will be important, since eventually that will establish any link between benefits received and the conservation of wildlife.

The importance people will assign to the potential financial and intangible benefits is largely based upon their perceptions and positions within the community. The significance of benefits may thus vary among stakeholders. For example, Ashley (1998) suggests that cultural benefits seem to be most important to the elderly and employment opportunities to the youth. For poorer households, support in terms of food security and drought tolerance may be critical, while the more secure might prioritize enhanced community status and power, or the integration of wildlife with livestock management. Essentially the overall success of the approach will be based on whether people perceive the benefits from wildlife and their participation as members of the conservancy as outweighing the costs incurred to them. If that is not the case, then the overall program success in endangered. Jones (1998) notes from his observations that, to date, a relatively large number of communities appear to believe that the benefits of conservancy formation outweigh the costs. A further exploration of these issues is a central focus point of next chapter.

4.5. CONCLUSIONS

Namibia has employed a number of innovative measures toward designing its CBNRM program in terms of carving a new common property regime, with inherent rights and duties for the communities. This has worked to move beyond a passive

participation of local communities since it directly empowers them with decision-making and management authority. Ashley (1998) maintains the aim is not to force people into sustainable management through imposition of rules, or to bribe them with economic incentives, but to empower them to manage the resource by enhancing their rights, responsibilities, institutions, and capacity and by revitalizing their conservation ethics (Ashley 1998).

The roles that different sets of benefits have played can be seen in relation with Jones' (1998) identification of three main phases in the CBNRM approach. Furthermore it identified that responsibilities, rights and benefits have played different roles within each phase, developing from project participation emphasizing cultural benefits to the establishment of self-sustaining community institutions.

1980-1992 - from poachers to gamekeepers. Communities develop responsibility for wildlife through a community game guard program and other local initiatives, mainly in the Kunene region. The benefits are mainly social empowerment and enhanced cultural values of wildlife.

1992-1998 - from gamekeepers to proprietors. Communities undertake the responsibilities required by government as they prepare for conservancy formation and start local enterprises. The first financial and livelihood benefits emerge, helping to sustain commitment, while social benefits from capacity-building continue to grow.

1998 onwards – self-sustaining community institutions. Once conservancies are operational and actively managing their natural resources, they start to form partnerships, all types of benefits will be enhanced, and conservancies are poised to become sustainable common property enterprise units with the benefits from the resource use ensuring the responsible management of the resource.

While various intangible benefits were of central important in the first two stages, the importance of economic benefits as incentives is likely to grow in the present phase, as the communities need to see a flow of financial income to sustain their interest (Durbin et al. 1998). Much emphasis is therefore put presently on enterprise development and means of maximizing the financial benefits retained by the local communities from the resource use and the conservancy program.

Important questions arise about local perceptions of these responsibilities and rights and how they relate to actual and perceived benefits. Are people generally negative towards this new regime and feel that it will only benefit a few people in local élites, or do people generally have a more positive outlook, seeing the benefits from the conservancies as outweighing the costs from wildlife and the responsibilities they have vowed to undertake? Of further interest is how these perceptions relate to changes in peoples' attitudes and resource-use strategies.

The incentives facing local residents and their perceptions most strongly determine land use, since residents are the de facto decision-makers on land use (Ashley 1996). Answers to the above questions are therefore of central importance when assessing whether the present level of property rights devolution has in fact positively changed people's attitudes towards wildlife and its use.

Photo 5.1. Elephants represent a valuable species for wildlife utilization in Namibia, both in terms of consumptive and non-consumptive uses. In 1982 elephant numbers were down to 250 in the Kunene region, but have since then increased to about 400.

Photo 5.2. Representatives from some conservancies in the Kunene at a planning meeting in Wereldsend, IRDNC's base camp.

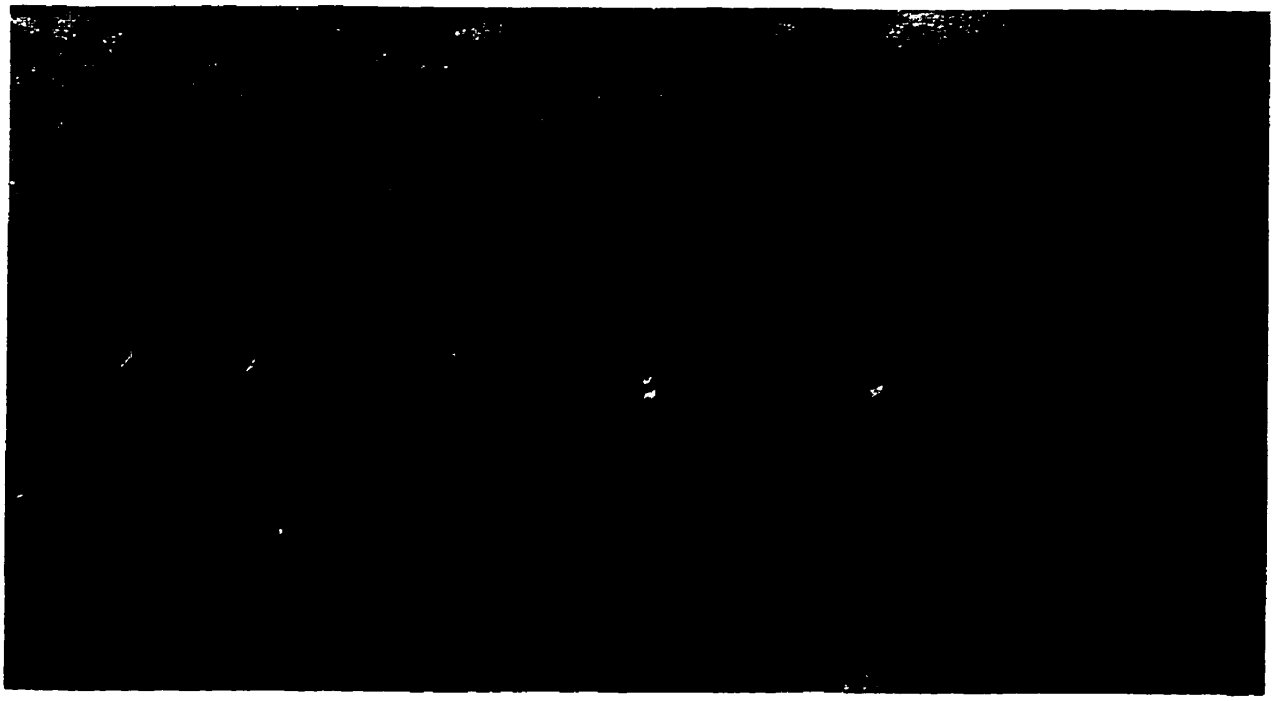

Photo 5.3. The Springbok is the most common game specie in the Kunene region.

Photo 5.4. The Giraffe population has recovered in the Kunene region since reaching a low point in the 1980's.

CHAPTER 5
CASE STUDY: THE CBNRM PROGRAM IN THE KUNENE REGION, LOCAL PERCEPTIONS OF BENEFITS, COSTS AND OWNERSHIP

This chapter explores people's perceptions towards wildlife and the conservancy program at the community level. Particular attention is paid to the attitudes towards rights, responsibilities, benefits and costs of the CBNRM program. This is of central importance since it is the attitudes and subsequent behavior of local people that will eventually determine the program's success. Insight into local perceptions is helpful when it comes to shedding light on the research questions presented in chapter one as well as providing a practical application in examining the role of property rights and benefits and costs in determining resource behavior.

The two main focus areas of the CBNRM program in Namibia are the Caprivi region in the northeastern part of the country and the Kunene in the northwestern part. The study sites of this research are located in the Kunene region. This chapter provides background information on the Kunene region and wildlife management in the area. Next, case studies from two conservancies are presented. The first study site was the Ehirovipuka, which is an emerging conservancy in the former Kaokoland, on the western boundaries of the Etosha National Park. The second conservancy case study is the Torra Conservancy in northern Damaraland.

This chapter is mainly based on fieldwork carried out in the Kunene region, both in the two conservancies and at planning workshops for all the conservancies in the Kunene region. Moreover, secondary documents were consulted and contributed to this chapter. These were mostly various project documents and evaluation reports from the Kunene project area.

5.1. THE KUNENE REGION

The Kunene region is situated in the northwestern corner of Namibia (see figure 5.1). The region is comprised of former Kaokoland in the north and the northern part of the former Damaraland to the south. The region borders Angola in the north,

Owamboland and the Etosha National Park in the east and the Skeleton Coast National Park in the west (IRDNC 1997). It is the home of some. 70,000 people covering an area of 70,000 km^2, with a population density of one person per km^2 (Durbin et al. 1997). The region is comprised of state-owned communal land (IRDNC 1997).

A large part of the Kunene region was formerly a part of the Etosha National Park but was deproclaimed in 1970 when the South African government established the system of homelands in the area and divided the region into administrative Wards. As a part of the apartheid policies, a number of people from other areas were relocated to these marginal lands (IRDNC 1997, Jones 1999). Five main ethnic groups - Herero, Himba, Damara, Nama and Riemavsmaker - presently inhabit the area. The Riemvasmaker people were for example removed from the Orange River in South Africa and resettled in the Kunene. The people of the area live in dispersed groups as a result of these forced removals which has also led to tensions between groups over land and resources as well as tenurial insecurity. Inter-group tensions and rivalries, the dispersed household settlements and rugged terrain are factors that all contributed to reduced social cohesion in the area and have created logistical problems for collective decision-making (Durbin et al. 1997). Lack of institutions for cohesive decision-making in the area is a problem that the current conservancy system is striving to overcome.

The area is mountainous with altitudes ranging from 100 m. a.s.l. along the coastal plain to 2000 m. a.s.l. in the interior highlands which are divided by rugged escarpments (IRDNC 1997). The area is severely dry, which places various constraints on livelihoods and possibilities for development. The climate is semi-arid to hyper-arid with precipitation varying from 350 mm to less than 50 mm per year, the average generally being below 200 mm per annum (IRDNC 1997). The arid conditions in the region along with the rugged terrain and infertile soils make it generally unsuited for arable agriculture. The economy of the region is therefore largely confined to semi- nomadic pastoralism, mainly cattle, goats and sheep, and limited sedentary livestock farming (Durbin et al. 1997). Natural resource use is mainly comprised of rangeland use for livestock grazing, collection of firewood, and veldfood to a minor extent. Crops and gardens provide people with small inputs to their livelihoods in some areas.

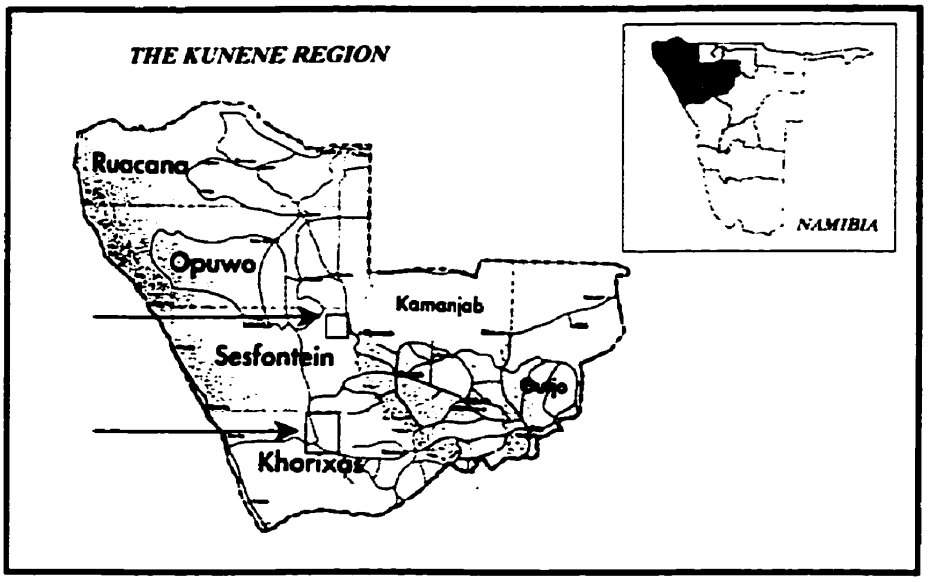

Figure 5.1. The Kunene region in northwestern Namibia. The approximate location of the two study sites are marked with squares.

The Kunene region is frequently plagued by droughts. By the end of December 1998, most of the Kunene region was experiencing problems due to drought game was thin and cattle had started to die in some areas (Jacobsohn 1999). The drought came up frequently in many interviews carried out with people, in particular in the Ehirovipuka conservancy that had suffered considerably from the drought.

Wildlife represents a valuable resource for the area and the greatest potential for development based on sustainable natural resource use. Wildlife in the region consists of a variety of arid savannas and desert-adapted species including the desert elephant, black rhino, giraffe, mountain zebra, greater kudu, oryx, black faced impala, springbok, ostrich and warthog as well as a diversity of bird species. Predators include lions, leopards, cheetahs and spotted and brown hyenas (Jones 1999). Due to the low productivity of the land, wildlife densities are not as high as in many other areas in Namibia.

Along with wildlife, unspoiled wilderness, scenic landscapes and traditional cultures represent a valuable resource for tourism development in the area. Sustainable use of wildlife and scenic attraction for tourism thus provide the greatest potential for economic and social development of the Kunene region, particularly when the scarcity of other alternatives is taken into account (Durbin et al. 1997). Estimates of the total

potential value of wildlife as a resource for the region are difficult to make. Ashley and Barnes (1996) have suggested that 1994 values for wildlife utilization in the form of tourism for the region were approx. N$ 3,376 thousand and that the potential use value could be as high as N$ 8,486 thousand. The central focus of development in the conservancy development in the Kunene has thus come to rest on tourism-related enterprise development.

5.1.1. Conservation background to the Kunene region

Two decades ago the Kunene region suffered high levels of poaching and dramatic decreases in wildlife numbers. By 1982 the elephant population in the region had been reduced to about 250 from an estimated number of 1200 in 1970. The black rhino, another species in great danger of extinction, had been reduced from a number estimated of 300 in 1970 to about 65. All other large-mammal populations declined by 60% to 90% (Jones 1999). The heavy poaching can be attributed to a number of factors that resulted in this great decline in wildlife numbers. The main factors have been identified as (WWF 1995):

- the increased availability of firearms during the liberation war in Namibia;
- commercial demand for ivory and rhino horn as well as leopard, cheetah and zebra skins; and
- subsistence meat and cash requirements after the loss of up to 85% of residents' cattle during the severe drought of 1980-81.

Also, the poachers themselves came from different groups and different background. Some of the main groups of poachers have been identified as the following (WWF 1995):

- government officials stationed in the region;
- South African defense force personnel stationed in the region;
- Portuegees refugees from Angola after 1975; and
- local residents on communal land.

For the local people, poaching was mostly for subsistence, due to the lack of food during the severe droughts in the beginning of the 1980's, although some hunted to sell tusks and horns to dealers. However, Jones (1999) points out that the biggest negative impact on wildlife stemmed from the extensive hunting by government officials and Defense Force personnel. Conservation agencies became concerned over the development in the Kunene and in 1982, Garth Owen-Smith, who later founded IRDNC, was placed in the region as a conservator by an NGO, the Namibian Wildlife Trust (Jones 1999). While working in the communities in the former Kaokoland, Owen-Smith discovered that the headmen and other people in the communities were concerned about the situation but felt that they were helpless to halt the decline as they had no authority over wildlife as the game belonged to the government (Jones 1999). With little support from the pre-independence conservation authorities, Owen-Smith along with Chris Eyre established the system of Community Game Guards (CGG) in a number of communities in Kaokoland. The CGG program proved in the years to come to be important for the efforts to reduce poaching, along with increased action on behalf of the conservation authorities. As the area started to recover from the drought after 1982, wildlife numbers started to revitalize (Jones 1999). Durbin et al. (1997) point out that the significance of the CGG program can among others be attributed to the following factors:

- restore to rural communities some of the responsibility over wildlife which had been taken over by the state during the colonial period;
- involve rural people in conservation under existing legislation;
- benefit local people through game guards' wages and rations; and
- provide local communities with a mechanism for expressing the sense of ownership they felt over wildlife.

In the beginning of the 1990's, wildlife numbers had recovered to relatively high counts. Wildlife is now recolonizing in many areas (Table 5.1) and the Kunene is the only area in Africa where the numbers of black rhinos are increasing on communal lands outside game reserves (Brown and Jones 1998).

Table 5.1. Wildlife statistics for large game species in the Kunene region (Source: Brown and Jones 1998).

SPECIES	NUMBERS IN 1982	NUMBERS IN 1990'S
ELEPHANT	250	415 (1995)
BLACK RHINO	65	120 (1996)
GIRAFFE	220	300 (1990)
MOUNTAIN ZEBRA	450	1800 (1990)
GEMSBOK (ORYX)	400	1800 (1990)
SPRINGBOK	650	7500 (1990)

According to wildlife authorities, poaching incidents have decreased substantially, and are presently down to only a few cases a year (MET field officer in the Kunene, personal communication). To what extent this development can be attributed to the community-based conservation initiatives in the Kunene is hard to estimate but they have without doubt had substantial influence in halting the decline and starting to rebuild the natural resource base. Presently, wildlife numbers in the Kunene present potentials to start a sustainable use of the resource for tourism as well as other consumptive uses.

5.1.2. The conservancies in the Kunene

It is evident that communities in Kunene are getting increasingly interested in undertaking the responsibilities of wildlife management to gain access to the potential rights and benefits embedded in the establishment of a conservancy. Emerging and potential conservancies in the Kunene region are illustrated in figure 5.2. To date, two conservancies in the Kunene have been legally registered and received the rights over wildlife resources as laid out in the new policy. These are the Torra conservancy and the ǂKhoadi //Hoas conservancy. While around ten communities are currently working towards establishing a conservancy in the Kunene region, the field work and this research focused mainly on the conservancies that are supported by IRDNC. These are currently six conservancies: Torra, Sesfontein, Omuramba, Ehirovipuka, Marienfluss and Purros.

While many communities have sought support to get a conservancy off the ground, IRDNC's capacity and funding is limited and the organization can not support all the communities that seek assistance. Each of the proto-conservancies with which IRDNC is presently working were selected as target areas for the program because of their wealth of wildlife and their subsequently high potential to earn income from a variety of sources,

though tourism perhaps present the greatest potential (IRDNC 1997). Thus the potential viability of each conservancy to become self-sustaining is an important criterion, and as mentioned earlier, an important prerequisite when selecting sites for any CBNRM project.

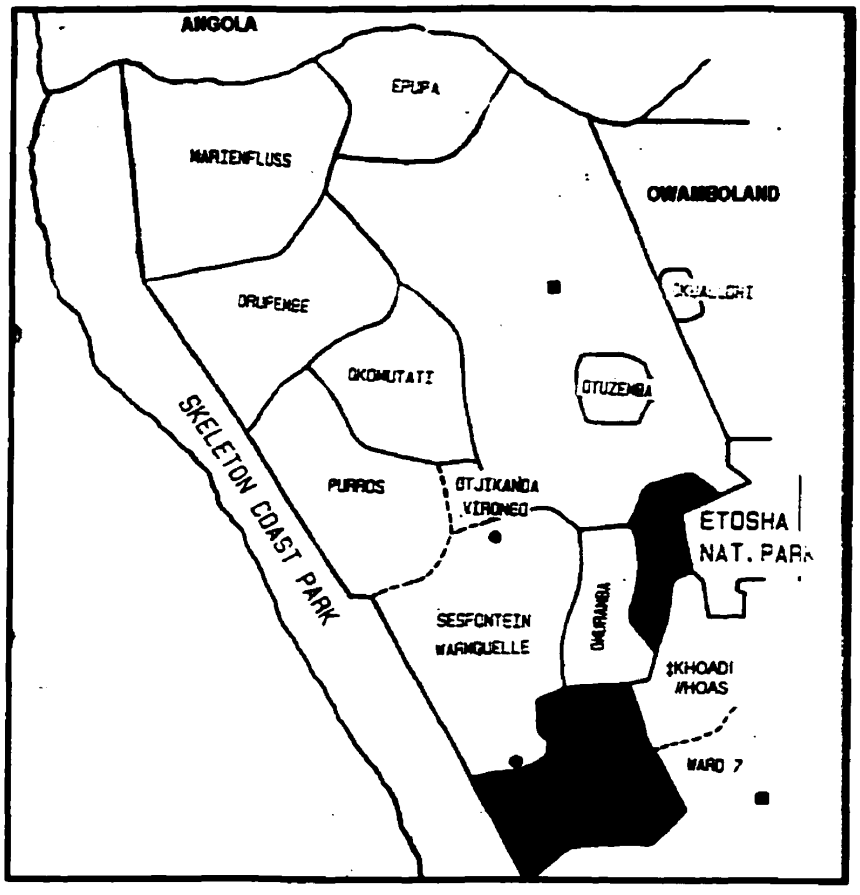

Figure 5.2. Emerging and potential conservancies in the Kunene region, (north Damaraland and Kaokoland). The study areas are shaded in gray. (Source: IRDNC 1997)

5.1.3. The CBNRM program in the Kunene - approach and philosophy

As facilitators in the implementation process of the CBNRM program in the Kunene region, IRDNC emphasises a definite development goal: "to contribute to the enhancement of the quality of life and alleviation of poverty for rural Namibians through improved natural resource management." This requires establishment of linkages between social and economic development, conservation and sustainable utilization of natural resources (IRDNC 1997). To reach this goal it is important that Kunene residents recognize wildlife as a valuable component of their rural socio-economies and accept that

rights to benefit from wildlife and other natural resources are inextricably linked to responsible conservation and management practices (IRDNC 1997).

Jones (1999) distinguishes between instrumental incentives, i.e. financial incentives, and intrinsic incentives. The intrinsic incentives are based on cultural and religious values, which affect the way rural Africans regard wildlife. Jones points out that the activities initiated by IRDNC in the 1980's were based on the understanding that local communities had an ethic of conservation and sustainable use, which could be built upon to halt poaching at the time. When the program was first started in the region, there was neither a national program nor any legislation enabling communities to derive financial rewards for their conservation efforts. Essentially there were no immediate financial benefits to offer in return, only the satisfaction for the community that members were doing something themeselves to halt the decline of wildlife in their areas (Jones 1999).

The approach of IRDNC is still largely based upon this recognition, and it can be said that the principle of communities taking responsibility for the wildlife resource before financial benefits flow has been fundamental to the CBNRM approach in Kunene (Durbin et al. 1997). The project approach has thus focused on the link between responsibility for natural resource management on one hand, and rights and benefits from that resource use on the other.

5.1.4. Past and present benefits from wildlife

Some communities in the Kunene region have received bed-night levies from tour operators in the area. This has benefited the communities in two ways. First, they have acquired some financial income and secondly they have established some informal mechanisms to distribute this income in the community. Community committees were formed to serve this purpose and surveys conducted. This process and experience have proved helpful in the current CBNRM program (Durbin et al. 1997). Also, a number of communities have received meat from community hunts of wildlife and from trophy-hunting animals. This has, however, happened only on rare occasions. Some communities received limited hunting permits in 1993 and 1995, and benefited from meat and sales of skins. Also, local people received some meat from government hunting operations in 1987, 1988, and 1991 (Durbin et al. 1997). In light of the limited income from bed-night

levies and hunting, it can be concluded that to date the tangible benefits for the communities in the Kunene have been insubstantial.

Presently it can be said that the program is at the stage where many communities have undertaken the responsibilities. The rights are attainable through the new legislation and what remains is for the communities to start seeing the tangible benefits flowing to sustain the commitment among community members.

As noted earlier the new legislation does not result in any automatic flow of benefits to the communities. Communities first need to organize and mobilize themselves and establish a credible management institution at the community level. With the new legislation, two objectives have come to the forefront of the approach in the Kunene. The first one is community institutional capacity-building and the second is community natural resource enterprise development and benefit enhancement. Thus, the IRDNC project has since the legislation and new policy been able to focus its efforts on assisting communities to set up the conservancies as responsible institutions which is essential for the communities to get the rights and benefits implied in the new policy.

5.1.5. The role of IRDNC in the CBNRM in the Kunene

IRDNC's role in implementing the CBNRM pogram in the field has been summarized as follows by Durbin et al. (1997):

- providing information
- facilitation
- training and capacity-building
- assisting with communication and access to others (e.g. legal assistance, tour operators)
- human resource support (community staff)
- financial and logistical support

Jones (1999) has identified IRDNC's approach as a 'light touch', based on bottom-up and flexible philosophy aimed at assisting communities in establishing conservancies. IRDNC does not set the agenda, but rather aims to facilitate and provide the necessary information needed for the communities to proceed and effectively work towards

establishing a conservancy, as well as assisting communities in disseminating the necessary information out to its members. The communities themselves must first decide that they have the interest in establishing a conservancy and starting to mobilize the community. After the community has indicated interest, IRDNC can provide assistance with the logistics and financial matters.

Capacity-building and training play a crucial role in getting the CBNRM pogram off the ground. The communities are provided with training and workshops in financial management, tourism operations and various other issues such as the distribution of benefits and support for small-enterprise development in the communities. This training essentially provides the building block for the future of the conservancies as self-sustaining management institutions that do not need outside assistance.

An important role played by IRDNC is that of liaison between the various stakeholders. They facilitate liaisons between the communities and private tour operators and assist with negotiations. They also liaise with the MET and the communities with regard to wildlife monitoring and problem animal control. This has included setting up a database for wildlife and building electric fences around gardens to ward off elephants as well as concrete walls around waterpoints to reduce the costs of elephant damage.

The problem of boundary disputes has been prevalent in the Kunene region. These disputes mainly arise between traditional leadership parties and are further fuelled by party politics. These disputes have slowed progress in Herero-speaking areas (Jacobsohn 1999). Although it has been strongly emphasized that the communities resolve such disputes themselves, IRDNC as well as the MET have played a role in facilitating negotiations between the communities.

The development of human resources in the conservancies is an essential foundation for the CBNRM project in Kunene. Besides the IRDNC staff which works in the field on outreach programs, environmental education and other logistical support, there are also community field staff. They are jointly appointed by IRDNC and the community. Their work in the communities includes mobilizing the community members, finalizing registration of members, and working with the conservancy committees on the various matters that need attention. The main positions are field

officers, community activators and community game guards. Their salaries are provided from donor funding by IRDNC.

- **Field officers**

The field officers or conservancy managers coordinate and liaise with IRDNC. They are provided with a 4x4 vehicle and radios to ease commuting in the conservancy as well as elsewhere. They are accountable for the budget IRDNC provides to the conservancy, until the conservancy becomes a registered entity. They also oversee the roles of the CGG's and CA's and pay out salaries. Overall their work resembles one of a manager in a small enterprise.

- **Community Game Guards**

The system of community game guards has been a central element in CBNRM in Kunene ever since 1983, and IRDNC has in its approach continued to place a strong emphasis on their role. The community game guards are hired from the local community and conduct patrol on foot or on donkeys in wildlife areas, 11-12 days a month. Their role is both to monitor wildlife as well as to report and prevent poaching. The community game guards cooperate with the MET and presently an elaborated monitoring system is being put in place using Global Positioning System (GPS) technology. Also, CGG reports are being recorded into a searchable database, by location, dates, numbers, etc. Presently, a large proportion of the poaching cases investigated by the MET result from information given by CGGs (Durbin et al. 1997). While in the past the CGG were sometimes given the evil eye in the community for spying on fellow community members, today the attitude is that the poachers are stealing from the community and the CGG thus hold positive social positions in the communities.

- **Community Activators**

As an element in activating women in the CBNRM program in the Kunene, local women have been appointed as community activators in each of the emerging conservancies. The role of the CAs is to inform women about the conservancy, the opportunities and benefits, and to get them involved in the process. The community

activators have proven to be an important strategy for activating the women in the Kunene region. Community activators informed the researcher that the attitudes of women have changed considerably since they started their jobs. First the women were skeptical and did not participate much, but today they have become rather active and interested in the benefits that can be gained from the conservancy formation.

IRDNC's role is instrumental in the CBNRM program in the Kunene. The path from policy to actual implementation, enabling the communities to attain the rights and benefits of the new policy, is complex and a variety of factors come into play. Outside assistance as well as financial support have proved to be of fundamental importance in this formation phase of the conservancy process.

5.2. THE EHIROVIPUKA CONSERVANCY

The Ehirovipuka Conservancy is an emerging conservancies in the Kunene region. In English the name of the conservancy translates into 'the land of wild animals'. It is situated on the western borders of Etosha National Park (see Figure 5.3). The population of the area is dominantly Herero and the conservancy consists of the several communities under two headmen, the headman in Otjikavares village and the headman in Otjetekua village. The area covers some 2.500 km^2, (DEA 1999) and there are approximately 200 households and around 2400 inhabitants in the area. The registration of conservancy members is ongoing and accurate numbers are still not available.

The community started working towards establishing a conservancy in 1998 and shortly after, IRDNC begun to support their conservancy formation. The Ehirovipuka conservancy has good opportunities for tourism development based on wildlife. There is considerable wildlife in the area, including elephants, and there is some beautiful wilderness in the area. Also, its situation on the boundaries of the Etosha National Park presents many possibilities, although at present the western gate to Etosha is not open up to tourists.

However, its proximity to the national park has also caused many problems and frustrations in the community in the past. As one older man put it: "*The Etosha Park is*

where we were born, and it is our ancestral land. We grew up there together with wildlife, but this was taken away by the park and now we do not have enough land to graze our cattle." Furthermore, there have been many problems with predators and elephants coming out of the park as well as from an adjacent tourism concession area causing damage to livestock and waterpoints. This has in the past led to feelings of resentment in the community. Due to the drought this year, the community applied to the Ministry for a permission to graze their livestock inside the national park. Their request was denied on the basis of the precedent this would set. The Ministry, however, advised them to get status as a registered conservancy which would allow for the possibility of the community benefiting from the park.

One of the main obstacles for the Ehirovipuka conservancy to get its application ready for the registration has been a number of boundary disputes, in particular with the Omuramba and Sesfotein conservancies. These disputes are complex in nature with roots lying far back. They are mostly based on power conflicts among traditional authorities, which are still strong in this area among the Hereros. Political affiliations have also contributed to these disputes. This has led to considerable delays in the process for all the conservancies involved as well as some heated debates. However, at the time of the research, it looked like these matters were on the right track, and that the Ehirovipuka and Omuramba conservancies were reaching an agreement about their boundaries.

The Ehirovipuka conservancy has presently a task force of 27 people from the different villages in the area working on the conservancy formation. This task force presently functions as a conservancy committee but once registered, an actual management committee will be formed after formal elections. The community field staff currently consists of one field officer and one community activator as well as four community game guards.

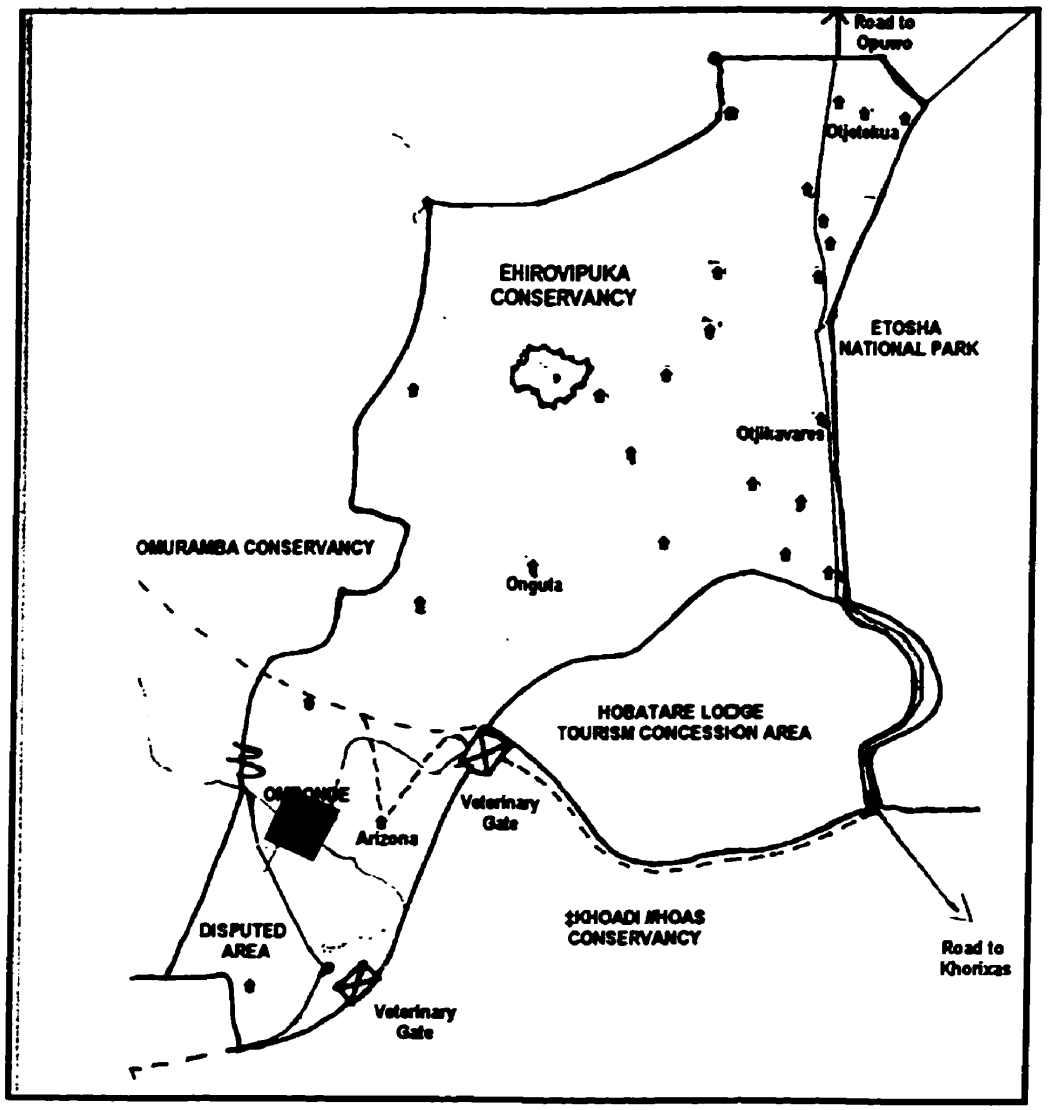

Figure 5.3. Map of the Ehirovipuka Conservancy. The map is drawn after an illustration by the chairman of the conservancy committee and the field officer, since no official maps exist of the conservancy.

5.2.1. Current and potential benefits

The direct benefits received by people in the communities have to date been limited to distribution of game meat two years back. Also, some financial benefits were received by a nearby tourist camp that paid out bed-night levies to the Otjikavares community. However, it seems that the committee responsible for the distribution of that money fell short of its responsibilities and the benefits failed to reach the community. As this research was conducted in the conservancy, this matter was being investigated.

Therefore, the community members have to date not received any financial benefits from tourism or other wildlife ventures.

Some work has been done in a number of villages aiming at reducing costs from wildlife damage. This work has mostly focused on the building of concrete walls around waterpoints to prevent elephant damage as well as building new water points meant to divert elephants from community water holes.

The area has good potential for various forms of enterprise development based on tourism. As mentioned before, they are located on the boundaries of the Etosha Park and the road going to Opuwa and Epupa Falls in the north, runs through the community. Location-wise, the area thus has the potential to attract considerable traffic of tourists. During the field visit, the proposed Core Wildlife Area of the conservancy in the Ombonde river was visited (see Figure 5.3.). The Ombonde River has great scenic beauty and high wildlife numbers, including elephants. This area represents a great location to build up a tourism lodge enterprise which could be either community run as a joint venture with a private operator.

Other potential income-generating activities in the conservancy include establishment of a traditional village, a community campsite close to Otjikavares village, and trophy hunting.

5.2.2. Description of villages and data gathered

The following section describes data gathered during eighteen days of fieldwork in the Ehirovipuka conservancy. Separate group interviews were conducted with men and women in four villages in the conservancy. The central topic of the group interviews was the benefits (positive) and costs (negative) aspects of wildlife and the conservancy formation. People talked freely about their opinions and shared their hopes for the future with the researcher and the translators as well as amongst themselves. All the people interviewed had registered as members of the conservancy.

Seven key informants were also interviewed in the different villages, where the topics depended on each respondent's special area of knowledge or experience. Also, the researcher got an opportunity to attend several community meetings where issues

regarding the conservancy formation were discussed. Following is a brief description of the villages (see Figure 5.3) and the main activities carried out.

- **Arizona**

The village of Arizona is in fact a cattlepost and not a permanent settlement and many people who are from Otjikavares live there. People are only supposed to live there during drought since it is meant as an emergency grazing area. But people were still living there now during the rainy season because it was difficult for them to move back. They are in fact not very mobile as they have little access to transport. It is a beautiful place between mountains, about two hours drive from the main road on a rough path.

The residents of Arizona have had a number of problems with elephants using their community water points. Elephants have ruined the wind pump that was used to pump water from the well and they broke down the fence around the water point. The elephants often deplete the water supplies. Raleigh International[1] built an elephant dam aiming at diverting elephants from the community waterhole, just outside the village. It has, however, never served its purpose due to an unfortunate location, as the water gets dirty and sandy, so that the elephants continue to go to the community water hole. The people in Arizona have also had a number of problems with predators injuring and killing and their livestock.

In Arizona a community game guard was interviewed about wildlife numbers in the area and numbers of wildlife damage as well as his function in the community. Also, interviews were conducted with groups of men and women.

- **Onguta**

Onguta is a village located about two hours drive from the main road on a rocky path, but a beautiful drive. The villagers have had some problems with elephants coming to the waterpoint and drinking from the community water supplies. IRDNC has donated cement and the community is working on building a concrete wall around the pump and the well. It has also had some problems with predators and a cow was just killed by a

[1] Raleigh International is an UK-based organization, which aims to develop young people through challenging community and environmental work on projects and expeditions around the world.

hyena the day before the visit to the village. Onguta is the site for a potential traditional village that the community is interested in establishing although some feel that the location is too far from the main road to attract sufficient tourists. In Onguta two groups of men and women were interviewed, as well as the village representative of the Headman's Council in Otjikavares.

- **Otjetekua**

The village of Otjetekua is located near the main road on the northern boundaries of the conservancy and close to the Etosha National Park fence. The community decided to join the Ehirovipuka conservancy, despite having another headman than in Otjikavares. The community has had little wildlife damage although predators roam in the area. Interviews were conducted with a group of men and a group of women in the villages, as well as with the headman.

- **Otjikavares**

Otjikavares is the main village in the Ehirovipuka conservancy and is centrally located on the main road through the area. The main school for the community is located in the village. It will also serve as the center for the conservancy with the recently built conservancy office located there. In Otjikavares a group of women, many of whom were in the conservancy committee, were interviewed as well as a group of men who were members of the management committee. A group of youth members were also interviewed to shed light on the attitudes of the youth towards the conservancy formation, as some discussions from other areas had indicated that the youth were feeling left out of the process. Also, several key informants were interviewed in Otjikavares. Those included the field officer and the chairman for the conservancy, the representative of the headman who was not present at the time and teachers from the school. Finally an elder man was interviewed about the history of the impacts of the park and wildlife in the area.

The main issues emerging in the group interviews concerning benefits and costs of wildlife and the negative and positive aspects of the conservancy as well as their ranking of importance among the participants are summarized in tables 5.2 - 5.5. The costs are

not ranked with numbers as people generally saw the costs as being of similar degree. Their order in the tables, however, reflects a loose ranking of their significance. People's responses in the interviews are to a large extent based on their perceptions of anticipated benefits rather than actual benefits. The Ehirovipuka conservancy has not yet been registered and the community has thus not attained any rights over the wildlife resource, nor benefits therefrom. The discussion about the benefits and positive aspects of the conservancy thus reflects people's expectations of the conservancy. However, most of the costs discussed are indeed very real to people as most of the villages experience conflicts with wildlife.

5.2.3 Perceptions of benefits and positive aspects of the conservancy

Tables 5.2 and 5.3. below summarize people's perceptions of benefits from wildlife and positive aspects of the conservancy, grouped by villages and gender. When the data are reviewed, it is apparent that people do see the new conservancy system as being potentially beneficial for their livelihoods. A variety of benefits were mentioned and ranked differently among the different groups. The factors most prominent in the discussions included community development projects and improved livelihoods, employment creation, drought resistance strategies, cultural values of wildlife and increased tourism.

- **Community Development Projects**

Community development projects potentially leading to improved livelihoods in the communities were prominent in group-discussions, particularly among women. People mentioned general development projects such as schools and clinics, which are greatly needed in the area. Also, projects were mentioned that could potentially encourage employment creation and further income for the community. Ideas for such projects included sewing projects for women, community food gardens and craft centers. It is evident that people see such collectively beneficial projects as important as they are mentioned much more frequently than individual gains. The Kunene region is very remote and has not been a high development priority with the government. Therefore people feel a need for new development strategies to improve their livelihoods and the future of their children.

Table 5.2. Perceptions of benefits from wildlife and positive aspects of the conservancy - men in Ehirovipuka Conservancy.

VILLAGE 1 - (ARIZONA)	VILLAGE 2 - (ONGUTA)
1. **Drought Relief**; new boreholes can be drilled; these boreholes would be for both livestock, people and wildlife. In these areas *water is life*.	1. **Ownership/rights over wildlife** means hat they will get jobs. This will mean they will get benefits from wildlife. The government took the ownership away from them and now their **ownership is returned**.
2. They are already taking care of wildlife in this area. Having **recognized rights over it** will help them take better care of wildlife.	2. The **provision of jobs**, such as CGG, tour guides, hunting guides for trophy hunting. They feel that jobs are strongly linked to getting the rights over wildlife back.
3. **Community development projects** initiated, such as schools and clinic. They really need a clinic around this area; people have to travel vast distances to the nearest clinic.	3. **Tourism will bring benefits**, restcamps and other tourism ventures will create job opportunities.
4. They will benefit from the **management of other natural resources**, such as trees and springs. They will have more control over them and by that they can strive to keep them clean and unspoiled.	4. The community will again have the **responsibility to look after wildlife** in this area
5. It is good their **children will be able to see wildlife** in the future.	5. **Community development projects** will be initiated. They need a pump engine for the waterhole and a clinic.
▪ **Tourists** coming into the area also **bring other benefits**; give the people medicines and other kinds of goods. ▪ **Jobs** from tourism. ▪ The conservancy could bring in projects that the **government would not do in the area.** ▪ Jobs from tourism would not be the only jobs created; there would also be some **jobs created around the other projects such as a new clinic and the schools.**	▪ They **love seeing wildlife** and they do take care of it already. Wildlife is like livestock for them. ▪ **More wildlife in the area** is a benefit. All wildlife is good, even predators. Predators are one of the main attractions for tourists, so they can't exclude them. ▪ Conservancy can provide **cash loans** to people. ▪ They are presently suffering from drought and they really **need a borehole.** ▪ **Household income** from the conservancy is important since their households are strapped for cash.
VILLAGE 3 (OTJITEKUA)	**VILLAGE 4 – OTJUKAVARES**
1.Once the conservancy is registered they will have **the rights and ownership over wildlife to get income**. Then they feel all the other benefits will follow automatically.	1. Getting the **rights over wildlife and other natural resources**. Once you get that the rest of the benefits will follow.
▪ In the past they got **meat from wildlife** just like livestock and they were taking care of wildlife like livestock. With the conservancy this will be re-established. ▪ Wildlife will be **a source of income** through the conservancy. ▪ Wildlife is important to them. The previous government took it away from them, and they **want wildlife to be back in the area.** ▪ Trough conservancy **boreholes can be drilled** for wildlife and livestock, also to make gardens for foodcrops ▪ They have been applying for jobs but there are no jobs. Through the conservancy there is **hope for jobs**, such as working in lodges, CGG, and working in gardens. ▪ They refer to wildlife as the yellow flowers. Even if they do not eat it they **feel satisfied when they see wildlife.** ▪ More wildlife in the area will mean that they will get **more rain.**	2. Own community **restcamps and campsites** established by the community. 3. **Job opportunities** will be created for members of the community from 4.**Training and skill development**, in particular for the youth. ▪ Rights to **sell wildlife and game meat** to places outside the area. ▪ **Meat** for the community ▪ Covering operating costs **and higher pays for CGG**, and conservancy committee. ▪ **Local community projects**, sewing and craft centers ▪ **Attracting more tourists** will mean more benefits. ▪ **Selling the culture** such as in the form of a cultural village. ▪ Enjoy **seeing more wildlife.**

Table 5.3. Perceptions of benefits from wildlife and positive aspects of the conservancy - women in Ehirovipuka Conservancy.

VILLAGE 1 (ARIZONA)	VILLAGE 2 (OMGUTA)
1. Boreholes being drilled for livestock to **relieve the drought,** water is life	1-2 Good for **children to see wildlife**
2. **Development projects** such as provisions of a nearby **clinic.**	1 -2. They take care of wildlife and the community has the responsibility to take care of wildlife. **Conservancy will bring more power to take care of wildlife.** This is linked to that wildlife will brings tourists.
3-4. **Permanent employment** from lodges.	3. **Community development projects,** such as clinic, schools and boreholes
3-4. Part-time employment from **selling firewood and providing laundry services** to lodges and **selling crafts**	4. **Hope for jobs,** such as rest camps, cleaning, reception jobs. There is great need for jobs in this area.
5. Provisions of **adult education and training** to have better access to the opportunities.	5. **Selling crafts and other cultural items.** They feel this will **strengthen their culture.**
6. Having **more control over wildlife.**	▪ Overall an **improved standard of living** ▪ **Sell wildlife** and get money ▪ **Wildlife will bring tourists** that will bring various benefits ▪ **They enjoy seeing wildlife.** They see more elephants than other animals and feel that elephants should be decreased in the area and other kinds of wildlife brought in. ▪ Improved housing standards ▪ The conservancy could **bring better roads** in the area. ▪ Traditional village will be built here.
▪ They wanted to have **more control over the land.** ▪ They need better **roads and better infrastructure** so that more tourists can visit this area. ▪ Overall their attitudes to tourists were very positive, and they saw **tourists as a source of money** with little or no negative aspects. ▪ They said that they are **already taking care of wildlife** and conservancy will enable them to do that better. ▪ Get **more game meat.** They said that they are not used to game meat, they only get some every two years or so. ▪ They need **general training.** ▪ **Education for their kids** is important. ▪ Need **improved transportation** in the area.	
VILLAGE 3 (OTJETEKUA)	**VILLAGE 4 - OTJUKAVARES**
1. Have the **rights over wildlife,** just as they have over livestock, this **empowers the community.**	1-2. There will be **more jobs** for community game guards, tourism development will create employment.
2-3. Trough wildlife we get **improved standard of living.**	1-2. **Have control over wildlife** and other natural resources.
2-3. Conservancy can **create income, which can be used to pay, school fees for children** and other needs for their children. Also, they need transport so their children would not have to walk to school.	3. Selling of life wildlife will **create income.**
4-5. **Tourists will bring various benefits. Selling crafts that** will create jobs but also present their culture.	4.**Community development** and improved standards of life.
4-5. **Employment,** selling services such as laundry and firewood to lodges.	5. **Integration of wildlife and livestock** management skills.
6-7. Good for their **children to see wildlife.**	6. **Community empowerment.**
6-7. **They enjoy seeing wildlife** and want to see **more wildlife** in the area. Since they grew up they never saw an elephant.	7. **Cultural benefits,** the culture will strengthen and other people will come here and learn about their culture.
▪ **More game meat** when conservancy is established, they don't get a lot of wild meat at the present.	8. Conservancy can help to **develop a craft market, sewing projects** and other income generating projects.
	9. They really **enjoy seeing wildlife** and they would like to see other animals that used to be in this area but are no more. They enjoy wildlife like they do enjoy cattle.
	▪ Meeting people from other countries is good. We could also have a chance to see other countries and areas in Namibia. ▪ Recognition of the **community as a legal body.** ▪ Conservancy can raise funds for the community.

- **Drought Relief**

Drought relief was mentioned frequently as important by a number of participants. As discussed before, there had been droughts in the area and livestock was dying; considerable emphasis was therefore given to the possibilities of the benefits from the conservancy to provide means of alleviating or reducing the effects when droughts occur. Thus the drilling of more boreholes in the area seems to be an important priority among people, for both wildlife and their livestock. The potential income from the conservancy was also seen as an important strategy to reduce vulnerability and dependency on farming when drought occurs.

- **Employment and skill development**

Employment creation also ranked prominently in the discussions. There is high unemployment in this area, and in fact little employment besides subsistence farming. People mostly relate new potential job opportunities to increased tourism in the area, such as in tourism lodges and as guides for tourists. Some mentioned that other development projects, as discussed above, would also generate employment opportunities, such as craft centers and community gardens. Job creation from selling crafts was mentioned a number of times and people feel that this can be developed. Both men and women in this area engage in the making and selling of crafts.

Overall, people seemed to place more importance on collective projects where the community benefits as a whole rather a individual households as is the case with employment. People did not feel that access to jobs would create conflicts in the community, and the women were confident that these opportunities would not only benefit the men; '*we would never let the men get away with that*', as one respondent commented.

Lack of training and skills were mentioned by some as an obstacle to having access to jobs, as well as being tied to the home to take care of children and livestock. A number of people mentioned training and skill development subsequent to the community formation as a benefit. The women also saw some of the less permanent jobs as important since they would not require a full time commitment on their behalf. An

example of such jobs is to provide services such as laundry or firewood to tourism lodges.

- **Cultural value of wildlife**

Although the Herero people are predominantly pastoralists, wildlife has an important status in their culture. This was evident as many of the people mentioned it as an important benefit to be able to see wildlife more often in the area, as well as for children to be able to see wildlife now and in the future. People furthermore saw opportunities to enhance various cultural practices. People in Onguta mentioned that when tourists would come to the area they would have opportunities to set up a traditional village and display their culture to the tourists, thus strengthening their traditions. That people perceive this as a benefit is noteworthy as the cultural benefit accrues to society as a whole as well as to specific individuals.

- **Tourism**

It was observed that people clearly establish the connection between increased financial income and wildlife conservation and tourism. Most people were fully aware that wildlife was the main attraction for tourists coming to the area. Generally people felt that more wildlife in the area meant more tourists, which would eventually lead to more income. All the respondents were positive towards increased tourism development in their area and saw it as an important source of opportunities. They felt that increased tourism would not cause disruption to their traditional ways of life, although some mentioned that negative impacts from tourism on the environment and wildlife would have to be controlled.

- **Distribution of benefits**

When the discussion turned to how the benefits from the conservancy could be distributed, people generally felt that a priority was to address needs in the community and initiate much-needed community development projects. This would include boreholes, hostels for the school and clinics, as mentioned above. People felt that this

could make up for the inadequacies of the government to provide for development in the area.

Many people also mentioned that compensation is important for people who experience livestock and other damage from wildlife. When asked about compensations for livestock killed by predators, one woman said: '*it is obvious that we should receive compensation for these losses from the Park and the concession area; we can really feel this damage.*' Regarding access to jobs and distribution, some mentioned that preference should be given to people who experience such loss and also people that are in dire need of income. Distribution would thus be based on the fairness principle rather than equal distribution for all.

Others mentioned that they felt that jobs were important, but they only benefited few people or households. They felt that it was important to distribute the employment opportunities evenly between men and women as well as among the villages in the conservancy.

It seemed that the elders were a bit more skeptical and reserved when it came to talking about the potential benefits. One mentioned that he had heard good things about it, but he would believe it when he would see the benefits flowing; so far there had not been any. However, he expressed positive attitudes and a belief that this was a positive development. Overall people hope to see benefits flowing from the conservancy and wildlife in the future and see it as raising their income levels and improving their livelihoods. In general people are strongly positive towards the proposed formation of the conservancy.

5.2.4. Perceptions of costs of wildlife and negatives aspects of the conservancy

The people in Ehirovipuka conservancy have through the years experienced a variety of direct and indirect costs from living with wildlife (Tables 5.4 and 5.5). Most important these include lost access to grazing areas and damage from elephants and predators.

- **Compatibility of land uses**

An important aspect of wildlife conservation in rural areas is whether people see it as compatible with their current land uses. In the case of Ehirovipuka, the grazing of

livestock such as cattle, goats, and sheep is the primary land use as well as means of earning livelihoods. It was evident that people in general did not see a problem in combining the management of livestock and wildlife on the land. Furthermore, few saw the competition of wildlife and livestock for grazing and water as a negative aspect or a potential cost, except in severe droughts. People mentioned several times that wildlife and livestock had coexisted on the land in the past and this would not be a problem even though wildlife numbers would increase.

In general it seemed that feelings of incurred costs or negative impacts from the Etosha National Park and loss of access to grazing in that area were felt more by the older generation of people, who had lived through the changes in land uses. One mentioned that he felt that the fence should be removed so that wildlife and livestock could graze in the park together. This hardly seems like a realistic suggestion. But it remains to be seen whether the conservancy will get some benefits from the park; they would be in the form of access rights for tourism from the conservancy rather than grazing for livestock.

- **Damage from predators**

Although people's attitudes were overall positive toward wildlife, there was a definite tendency for people to differentiate between predators and elephants on one hand and other wildlife on the other hand. Most showed negative feelings towards the former and predators in particular. Cattle play an eminent role in the Herero culture and have a high cultural value, so when cattle are killed by predators, it is hard to forgive and forget. This also indicates that the actual value of the loss would be hard to measure in monetary terms since the loss of cattle represents more loss for the owner than would be reflected in the actual market price. Many people expressed strong resentment towards more predators coming into the area and felt that predators should be kept within secure fences, away from their livestock.

Table 5.4. Perceptions of costs from wildlife and negative aspects of the conservancy -men in Ehirovipuka Conservancy.

VILLAGE 1 – ARIZONA	VILLAGE 2 - ONGUTA
• Wildlife core areas **will be closed off restricting livestock and grazing.** They did however mention that they did not think that this would be a big problem. • They **do not want translocation of predators**, they already have enough problems with them. • They don't think that increased wildlife in the area is going to lead to overgrazing with livestock. **Wildlife and livestock already co-exist and graze together.** • They mentioned that a good solution would be to drill a borehole at the Ombonde River, for wildlife. • They also **have problems with elephants sharing water with livestock.** It would be good to have a borhole in wilderness areas.	• With improved management **combining livestock and wildlife is going to be possible** and not bring any problems. • **Wildlife will not bring any negative things.** • Livestock and wildlife have existed together for a long time, it is not going to be a problem. • **Tourists will not be a problem.** They used to come here. Maybe need some supervision to reduce environmental damage. • **All wildlife is good,** also predators and elephants
VILLAGE 3 – OTJITEKUA	**VILLAGE 4 - OTJUKAVARES**
• There is not enough water and that could be a problem if boreholes are not drilled, i.e. **lack of water.** • **No negative aspects of tourism,** it is a source of income. • **Predators can be a problem,** hyenas and lions may kill cattle, and they also harm people. • **Area might be too small for wildlife and livestock to graze together** because of Etosha National Park fencing. Gov't should move fence or let them graze their cattle inside the park. • Put a camp or fence **around predators** so they can not kill their livestock. • Closure of areas for wildlife and tourism **might not have to affect anyone.** It will be a source of income for all conservancy members.	• **It is easy to integrate wildlife and livestock,** they have been living and grazing together in the past. • There is **lack of boreholes** in wilderness areas. • They have been having a lot of **difficulties with predators.** • Putting up a core wildlife area will be a negation between Headman council, the conservancy committee plus the community in the neighborhood. **Should not bring conflicts.** • **Tourists are a source of income** so they are just fine and **no negative aspects.**

Table 5.5. Perceptions of costs from wildlife and negative aspects of the conservancy -women in Ehirovipuka Conservancy.

VILLAGE 1 – ARIZONA	VILLAGE 2 - ONGUTA
• **Predators are a problem.** They do not need more problem predators in the area. A hyena has killed a calf, and injured a cow. • Elephants destroyed the wind pump. They do not want any more elephants there is already enough problems with them. • Overall they saw predators and elephants as negative but other wildlife as very positive.	• Elephants killed 7 cattle and 2 donkeys in the area. • **Tourists make elephants aggressive** • **Predators should not be translocated** (there already have problems with predators coming from the tourism concession area and the National Park. • **Predators are not positive** and they should be limited to kraals so they can not harm livestock. **Other wildlife is good,** even elephants though they are sometime naughty they are good animals.
VILLAGE 3 – OTJITEKUA	**VILLAGE 4 – OTJUKAVARES**
• There will not be a problem with overgrazing, **livestock and wildlife can be integrated.** • **Predators can cause a problem,** both as threats to people (not so often) **and killing livestock, this is big problem.** • **Tourists are good, will not cause any problems.** • Conflict in the community over jobs or benefits will not be a problem. • It is fine to close off areas for wildlife and tourism, but these things **must be negotiated with the community.**	• Community conflict over the management of the natural resources. It can cause **conflict when some people get access** and others don't. • It can cause bankruptcy if the **management and distribution is not fair.** • When there is drought there could be **problem with overgrazing,** maybe need to feed the wildlife like cattle. • **Predators kill their livestock.** • **Elephant damage** to gardens and trees.

People are allowed to kill the predators that cause damage. Such animals are frequently referred to as 'problem animals'. However, these animals often move back into the Park or the concession areas out of reach from the farmers. People in communal areas do not get compensation from the government, as do commercial farmers. This point brings up a question on the distribution of benefits and the fact that people suffering from wildlife damage might not see a community development project as a fair compensation for their loss and they might fail to link individual costs to common benefits. Thus, it seems likely from conversations with people, in particular those who have been negatively affected by predators, that direct compensation might need to be provided to ensure these peoples' commitment to the conservancy. However, such a system of direct financial compensation has proven to invite misuse in the past in many south African countries.

- **Damage from elephants**

Overall it seemed that elephant damage was a bit more accepting. As one woman commented: *'even if elephants are sometime naughty they are still good and sensible animals'*. Perhaps this is because damage from elephants is to some extent easier to control and because it usually occurs to the community as a whole rather than to individuals and is thus easier to mend by collective action. Water is, however, a scarce resource in this area, even during the rainy season, so conflicts with elephants over water resources are serious. Lack of access to water can pose serious threats to people's livelihoods. As Owen-Smith (personal communication) pointed out '*as long as you have elephants and people living together you will always have problems*'. As many people mentioned, this conflict can be mitigated by drilling boreholes in wilderness areas to prevent the elephants from roaming into the villages in search of water.

A few people realized that elephants and predators are central species in tourism attractions for the area. An elderly man mentioned, as he revealed his scars from an attack by a lion, that he still loved lions as well as all other wildlife in the area. The majority, however, remained rather negative towards predators and a question is how

those perceptions are going to evolve, given the centrality of predators as an attraction for tourists.

5.2.5. Perceptions of youth towards wildlife, CBNRM and living in the area

A group of youth was interviewed in the Otjikavares village. It had previously been indicated in various conservancies that youth deserved special attention in the process and often had different perceptions with regard to conservancy establishment (Table 5.6). Furthermore, in some areas youth had felt left out in the conservancy process.

Table 5.6. Positive and negative aspects of living in the area and benefits and costs of the conservancy – youth from Otjikavares village, Ehirovipuka Conservancy.

POSITIVE ASPECTS ABOUT LIVING IN THE AREA	DISADVANTAGES OF LIVING IN THE AREA
▪ Attractive Area ▪ Wildlife present in the area ▪ Springs ▪ They have an opportunity to establish a conservancy ▪ Have an opportunity to participate in Raleigh International Excursions ▪ They have a youth group that is recognized by the government. ▪ There is a school in the Otjikavares village (although they have some major problems with youth failing grade 10 and not having opportunities to take it again.) ▪ IRDNC has organized youth trips and has helped youth visit other conservancies.	▪ **Lack of sport facilities** ▪ **Unemployment** is a big problem ▪ Lack of institution to help **them improve their marks and pass the tests**, this should be available somewhere close to the area, because lack of finances to go away for these se vices is a big constraint.
BENEFITS AND COSTS OF THE CONSERVANCY	
BENEFITS	**COSTS**
1. **Training and skill development**	1. Closure of areas for tourists will **effect livestock grazing** and might result in that they have to take the livestock to faraway places.
2. **Jobs**, including tourist guides, game guards, jobs at restcamps and campsites.	2. **Predators killing livestock**
3. **Area will be developed**	3. **Rhino and elephants threaten people.**
4. Equal love for both wildlife and livestock	
5. Better care for wildlife	
6. Conservancy will provide **money for education** in area centers	
7. **Opportunity to see wildlife** they have never seen before.	
8. Conservancy will support their **sport activities** and provide improved facilities for sports	

Job creation and skill training ranked particularly high among the youth as it saw lack of employment and training opportunities as the most negative aspects of living in the area. Young people overall wanted the community to be developed and they did not

want to move away to the city where there is poverty. Their wish is to remain in this area where their family is, and they believe that the conservancy formation will provide the necessary opportunities for them to do so. Overall the youth were very positive and had high expectations for the conservancy. The youth also indicated interest in working in the tourism industry and felt that tourism development in the area would be positive for them.

The youth have already received some benefits as a result of the conservancy formation process. Several youth members have through IRDNC had opportunity to participate in Raleigh International excursions as well as wildlife excursions in the areas. One of the founders of the *Youth Group* in the village of Otjikavares is also the vice-chairman of the conservancy committee and helps to keep the youth informed about activities ongoing in the area.

5.2.6. Perceptions of ownership, rights and responsibilities

The importance that devolution of property rights play in the new CBNRM program was clearly indicated in people's attitudes. As can be seen in tables 5.2 and 5.3, all groups mentioned increased rights over wildlife or ownership of the resource as an important benefit. In many cases people saw this as the most important aspect of the proposed conservancy. People also saw increased rights as closely linked to their ability to have more responsibility to oversee the management of wildlife in the area. A number of people mentioned the recognition of their rights over wildlife as creating a sense of empowerment in the community. The importance of ownership and rights for the wildlife resource was overall more evident among the men. The women seemed to place more emphasis on the more tangible benefits such as access to schooling for their children as well as the notion that their children would see wildlife in the future.

It was evident that people felt that wildlife was a resource that had belonged to them in the past but had been taken away by the previous government. The feeling that the conservancy was a means to return to the community a resource that was rightfully its was apparent. Many people mentioned that they had in the past taken care of wildlife and that their rights to do so and to manage it along with their livestock would now be recognized. One older man said that wildlife was one the community's belongings, just

like livestock and that people are going to take care of it like they did in the past. This attitude can be seen as an indication of a feeling of responsibility over the wildlife resource in the area.

People also saw the conservancy as potentially bringing increased rights over the management of other natural resources in the area. For example, the women collect mopani worms which they sell to nearby communities, and sometimes they have trouble with people coming from other communities harvesting the worms. Potentially the conservancy could in the future provide the mechanisms to manage the various natural resources in the area under a common property system embedded in the conservancy institution.

Many people clearly indicated that they felt that increased rights to use and manage wildlife was the basis on which all other benefits rested. Once they would have rights over wildlife, benefits from wildlife and tourism would follow. This can be interpreted as indicating that people seemed to make a strong link between rights over wildlife and the responsibility for it, and the benefits they would attain from that use.

It therefore seems that the potential devolution of property rights to the community through the conservancy institution has the potential to establish a sense of ownership among the community members. Even though this new property regime does not provide the conservancy with absolute ownership over the wildlife, people conceive of the rights this regime entails as fundamental to the whole process, providing them with a sense of ownership. It could be speculated that without the anticipation of these rights, people would view the program differently and perhaps see it more as a government-run development program absent of any sense of empowerment by the community. It furthermore seems that not only a specific group of people see the ownership of wildlife as important, as this was mentioned by all people to varying degrees.

5.2.7. Summary

All the groups interviewed maintained that they saw the potential benefits of wildlife and the positive aspects of the conservancy as outweighing the costs and other negative aspects. This indicates a strong sense of community support for conservancy formation and furthermore that these positive perceptions of benefits might play an

important role in securing people's commitment to sustainable management of wildlife in the future. But this also brings up another crucial issue, namely expectations of benefits. At this point in the conservancy process, the discussions reflect people's anticipation toward the benefits rather than actual benefits, tangible or intangible. When the communities are further along in the conservancy process, they might find that the actual cost/benefit ratio is not the same as originally anticipated and perceptions towards the conservancy and wildlife might change.

Without a doubt, expectations are being raised among members of the community in regards to the proposed benefits as the conservancy concept is being introduced to them and they sign up as members. As one respondent commented, '*we do not have so much experience with the conservancy but we have heard the good things that can happen and we are trying to get the goodies other communities are getting.*' However strong peoples' sense of ownership and responsibility is, it seems evident that the people in Ehriovipuka also expect the new conservancy to increase their income and lead to improved livelihoods. Questions thus arise, e.g. when the reality of benefits in the future does not meet peoples' expectations, what will be the resulting response among people and will jeopardize the community support?

Photo 5.5. Villagers in Arizona, show a cow badly injured from a hyena attack.

Photo 5.6. Cattle grazing on the boundaries of the Etosha National Park in the Ehirovipuka conservancy.

Photo 5.7. The Ombonde River area is an example of a proposed Core Wildlife Area in the Ehirovipuka conservancy.

Photo 5.8. A group interview with youth in the Ehirovipuka conservancy.

5.3. THE TORRA CONSERVANCY

The Torra Conservancy is one of two legally registered conservancies in the Kunene region, officially gazetted in mid-year 1998. Its name is drawn from the cone-shaped mountains that characterize the landscape of the area. It is situated in southern part of the Kunene region, in the former Damaraland, sharing borders with the Sesfontein conservancy, ǂKoadi //Hoas conservancy, Doro !Nawas conservancy, and the Skeleton Coast National Park to the west (see figure 5.2). The Torra conservancy has in many ways come to symbolize the success of the conservancy approach in Namibia, and has gained much attention for the progress it has made in CBNRM. Particular attention has been given to the operation of the Damaraland Camp joint venture (for location see Figure 5.4), which has been seen as successful benefit-sharing venture between a community and the private sector.

The population of the Torra conservancy mainly consists of Damara people and Rievsmaker people, who relocated in the area from Southern Africa in the 1970s. The area covers some 8,000 km^2 (DEA 1999), with approximately 120 households and around 350 individuals registered as members of the conservancy. This is, according to the CMC, almost everybody who has permanent residence in the area. The settlement pattern consists of widely scattered individual farms, each with a few households.

The formation of the Torra conservancy begun when a Residents Trust was formed for the former Ward 11, to negotiate the establishment and operation of the Damarland Camp joint venture in 1996. When the conservancy legislation came into place later that year the next logical step for the community was to extend the Residents Trust and start working towards forming a conservancy. At first there were problems with convincing people in the area about the advantages of the new system and some were skeptical about signing up as members. Today, however, almost everybody has signed up and the general feeling is that the conservancy is a positive development for the area.

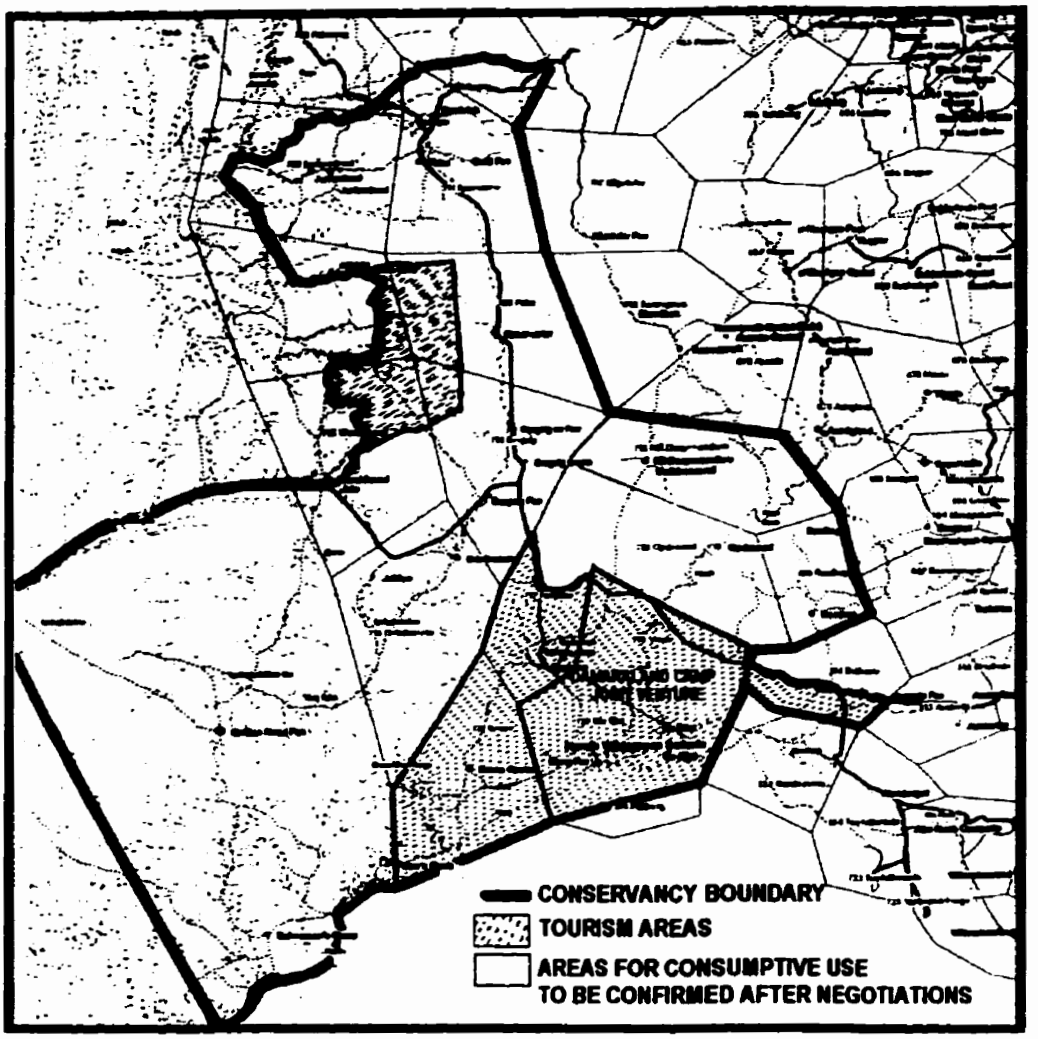

Figure 5.4. Map of the Torra Conservancy. (Source: Torra Conservancy)

Torra has had its share of boundary disputes and some remain unresolved. A dispute over farms in an adjacent area with the Doro !Nawas conservancy is currently a serious hindrance to further development of the Torra conservancy. Most important, it hinders the distribution of benefits. The Torra conservancy was gazetted even though boundary negotiations were not finalized. Only the areas where negotiations had been finalized were registered as a part of the conservancy. The farms in the disputed area were part of the Ward 11 Residents Trust, and are thus entitled to benefit-sharing from the joint venture. However, the Doro !Nawas conservancy is currently claiming that this area belongs to it, thus causing confusion over which conservancy these farms should

join. In theory people can join the conservancy they wish, and the researcher was informed that these people have opted to go with Torra. However, for reasons that mainly seem to be bureaucratic, this matter was still not resolved at the point of departure from Namibia.

Some ethnic tensions have also been noticeable in the Torra Conservancy between the Riemvasmakers and the Damara people. These tensions were at the time based on accusations that the process was run by Riemvasmakers people and they were the only ones benefiting from the joint venture (Jones 1999). To address this situation new elections were held, resulting in a Damara person becoming the president of the conservancy management committee. Thus presently the committee consists of four Damara people and four Riemvasmaker, although during the research one Damara committee member resigned from the management committee as a result of ongoing conflicts with other members.

Another potential problem in Torra has been that some people living in peripheral areas and people recently moved to the area have felt left out of the conservancy process and felt badly informed (Jacobsohn 1999). The aim is to mend this by increasing numbers of visits from CGG and the conservancy committee to these groups to inform people. Also, people moving into the area for emergency grazing have caused some problems by not recognizing the land-use planning by the conservancy, thus grazing in core wildlife areas. This could become a problem in Torra as well as in other areas, as the conservancy does not have the legal right to exclude people from grazing within the conservancy. Given the lack of excludability, the importance of informing and generating cooperation with the neighbors has come to be important to make people realize the benefits of the conservancy and the aims of its land-use planning.

The Torra conservancy has great natural resources, with scenic landscapes and wilderness areas. Two areas have already been zoned as exclusive tourism areas (Figure 5.4). Most importantly, the area is rich with wildlife, including both black rhinos and elephants. The field officers informed the researcher that wildlife numbers have increased in the area in recent years. For example, some years ago there were only seven black rhinos in Torra; while today they are seventeen. Extensive rhino monitoring is carried out in the conservancy and every month each black rhino in the area is located.

The rhino monitoring is carried out in cooperation with *Save the Rhino Trust* (SRT), which is a NGO working on black rhino conservation in the Kunene.

The field officer informed the researcher that poaching used to be a problem in Torra but had decreased in recent years. He noted that people from the community report poaching and that the community members realize that this is their resource and that they must protect it in order to benefit. The current cases indicate that most of the poaching is done by people from outside the area. Four cases of illegal hunting in Torra involving a kudu, a springbok, a zebra and a gemsbok have been reported recently. All of these poaching incidents resulted in convictions which is largely accredited to cooperation between game guards, conservancy members and the MET (Jacobsohn 1999).

Torra reflects a different aspect of the conservancy formation process than the Ehirovipuka conservancy. Since Torra has finalized its registration, constitution, and most of its boundary matters, the focus of the Torra conservancy committee has now come to rest with the development of the conservancy as an enterprise, generating benefits and seeking means for their distribution within the community. Torra has thus taken steps towards being a self-sustaining institution and in August 1998, it took over 40% of the operating costs, allowing IRDNC to reduce donor funding. The total operating cost of the Torra conservancy is an estimated N$ 150,000 per year and the conservancy now pays salaries for its five game guards and the Field Officer as well as vehicle running costs (Jacobsohn 1999).

With the Torra conservancy already operating as a common property resource institution, allocating the resources and retaining benefits from that allocation, the conservancy represents an interesting case study for the purpose of this thesis. There is potential to bring to light the importance people assign to the different elements of benefits and costs in an already operating conservancy. At the time of the research, the conservancy had not distributed any financial benefits to the community, which might undermine its suitability in providing a contrast to the Ehirovipuka conservancy. However, a number of people have been employed as a result of the conservancy formation and wildlife-related enterprises and meat has been distributed and people have participated to varying degrees in the management of wildlife in the area.

5.3.1. Description of methods used and data gathered

The following section describes data gathered during fieldwork in the Torra conservancy as well as results from a survey conducted jointly with a researcher from the University of Namibia. The data needs of both researchers were combined in the survey. The aim of the survey was to measure peoples' perceptions towards the benefits and costs of wildlife and to explore whether the formation of the conservancy had established a sense of ownership and control over the wildlife resource among people in the area. The aim was further to establish an indication of the level of participation and involvement of the community members in wildlife and conservancy management.

The survey was a household survey. Although it was aimed at heads of households, it may have been answered by more than one person. Other people in the household were free to participate and the final answers could indicate a decision reached after discussion among household members. Thus to some degree each response represents the particular household's stand on the matter. The definition of a household in this survey reflects an understanding of the household unit as one or two generations of relatives living together. One farm settlement can include two or more households, although all are a part of the same extended family.

The aim of this survey was not to gather data for elaborate statistical analysis such as regression analysis. For such, the sampling methods were not accurate enough and the sample size is too small to establish statistical validity to be able to form generalizations about the population. However, this survey can be used to establish patterns and an indication of the attitudes of the households in the area and the community members. The survey results are therefore used for qualitative analysis and comparison with other information gathered during the research process.

The total number of surveys conducted in the Torra conservancy was 60. Males were the majority of the respondents or 38, and women numbered 22. The respondent was the head of the household in 52 surveys. The average age of the respondent was 51, the youngest was 24 years old and the oldest 84 years old. Most of the people interviewed, 44.8%, were subsistence farmers, 23.3% were pensioners and 21.7% were government employees. The average number of years spent in school was 7 years, although 12 respondents had not attended school at all.

Several key informants were also interviewed in the Torra conservancy. These included the Field Officer for the conservancy and the secretary as well as the managers of the Damaraland Camp. Also, the researcher got an opportunity to attend a whole-day community meeting at the Bergsig community where people from the whole conservancy were present. At the meeting the management committee informed the conservancy members about progress and current plans and a platform was provided for input and participation for the members on the issues facing the conservancy. The researcher also attended a two-day workshop with the Torra conservancy management committee on the equitable distribution of conservancy benefits, organized by IRDNC. The insights gained by the researcher into the operations of the Torra conservancy also benefited from the views of NGO staff and other CBNRM staff working in the area.

5.3.2. Current and potential benefits

At the workshop on the equitable distribution of benefits in the conservancies, the Torra management committee identified the main present and potential cash and non-cash benefits for the conservancy, summarized in table 5.7.

Table 5.7. Current and potential cash and non-cash benefits for the Torra conservancy. (Source: Torra CMC at a workshop on equitable distribution of benefits, March 1999).

CASH	NON-CASH BENEFITS
▪ Trophy hunting	▪ Progress in development
▪ Sport hunting	▪ Meat
▪ Bird hunting	▪ Employment
▪ Joint Ventures (Damaraland Camp and others)	▪ Skills
▪ Venison (sales of meat)	▪ Crafts
▪ Community campsites	▪ Training
▪ Sales of live animals	▪ Cultural activities (e.g. traditional dances)
▪ Curio sales	▪ Area monitoring
▪ Infrastructure rentals	▪ Cultural values
▪ PTO rentals	▪ Improved management
	▪ Community empowerment/responsibility

As can be seen in table 5.7, the Torra management committee envisages a variety of activities to create potential benefits for the conservancy. The cash benefits are seen as creating financial income for the conservancy and thus as opportunities for collective income while the non-cash benefits accrue to individual members of the conservancy or groups, rather than to the conservancy as an institution. Most of these benefits have been

discussed previously, and as can be observed they include both tangible and intangible benefits. For the relevance of this chapter, two elements require elaboration as they are at the heart of income generation of the Torra conservancy and will likely provide the bulk of the income generated in other conservancies. Those are joint ventures and trophy hunting.

- **Joint Ventures - *The Damaraland Camp***

Private tour operators have in recent years become increasingly aware of the potentials of the Kunene region as a prime site for eco-tourism. It was only in 1986 that the first tourism lodge in the Kunene began operating, since then many more have followed. Up until present times, revenues from these tourism ventures have not been distributed equally between the private sector and the communities (Durbin et al. 1997). The conservancy formation however represents a major shift in this regard. When a conservancy gets gazetted, essentially no one can set up a tourism operation in the area without the conservancy's full permission and cooperation.

As mentioned in the previous chapter, the new concept of joint ventures has come to the forefront of tourism development in the Namibian CBNRM program, as they allow for meaningful community participation in lucrative tourism ventures. A key example of such a venture is the *Damaraland Camp* in the Torra Conservancy. In the *Damaraland Camp,* a private company, *Wilderness Safaris,* provides the financing, marketing and development expertise, while the community provides access to the land and the natural resources upon which the operation of the camp rests, i.e. wildlife and scenery. The camp operates in an area with exclusive use rights and it stretches over five farms. The farmers still graze their livestock in the area except closest to the camp and in their CWA. Those who lost access to grazing were provided with employment opportunities at the camp.

The Damaraland camp is an up-market lodge, charging over N$1000 per person per night. There seems to be a growing market for such up-market 'ethical ecotourism' and the manager of the lodge noted that '*there seems to be a trend in the world today that most tourists want to stay at community-based lodges, or at least that there is some community participation happening. Other lodges are on the defensive and are losing customers.*' Joint ventures thus do not only make sense from an ethical standpoint but from a pure business standpoint as well. In 1998 the Damaraland Camp was voted one of

three top eco-tourism destinations in the world by the British Guild of Travel Writers (IRDNC 1998).

The agreement provides the community with 10% of all income, irrespective of other factors. After 5 years there are provisions in the contract to negotiate new terms and after 15 years the community has the option to start buying Wilderness Safaris out of the operation if it so chooses. From June to December 1998, Torra's income as shareholders in the camp amounted to N$ 103,274 (Jacobsohn 1999). The contract furthermore obliges the company to spend certain amounts on training and skill development for the community members employed at the lodge. Currently there are 12 people employed at the lodge with wages for the period June to December 1998 totaling N$ 111,673, with local women earning N$ 2,749 for laundry services in the same period (Jacobsohn 1999).

A joint management committee (JMC) runs the camp. Although the community has little say in the day-to-day management of the lodge, it oversees hiring of staff and has a general input into the management. There have been some problems noticeable in the cooperation between the community and the company, in particular with regards to management issues. A few bumps are, however, to be expected as the perspectives are likely to be quite different. At present, many issues that have arisen have been overcome and today the manager of the camp feels that the cooperation with the community is going well and the community is getting happier about its overall involvement in the operation.

An interesting issue brought up by the camp managers was a concern about the proposed trophy hunting activities in the conservancy and to what extent it would prove to be compatible with the operation. Most of the visitors are opposed to any kind of killing of animals and this could potentially jeopardize the camp's reputation as founded upon ethical ecotourism. As long as the hunting is, however, carried out outside the exclusive tourism areas, this arrangement should work and people understand the need for Torra to generate benefits from different means of wildlife use. This, however, brings to light that the conservation of wildlife and potential enterprises to benefit the local community are heavily dependent upon external forces, such as the conservation ethics of Westerners.

It is evident that the joint venture model provides an avenue to reach several important goals in the Namibian CBNRM program. It has the potential to generate substantial amounts of income for the conservancy, as the experience in Torra has shown and it provides employment and training to a number of community members. It furthermore empowers the community by shifting power relations, making the community an active participant in the process rather then being a silent receiver of benefits or handouts from the tour operator. There are, however, many issues that need to be negotiated such as the length of the contract, benefits-sharing, minimum performance provisions and the exclusivity of land use for the tour operator. An agreement is not reached in all proposed joint ventures.

Another potential joint venture was being negotiated in the Torra conservancy last year. In an area called Poachers Camp, a private tour operator had shown interest in operating a camp and started negotiations with the CMC. These negotiations fell through because the community found the terms the private operator was offering unacceptable. One of the major stumbling blocks was that the company was asking for a 30-yr contract. This can be taken as an indication of improved confidence in the community in negotiating with the private sector.

- **Trophy Hunting**

With the legal registration of the Torra conservancy, it attained the rights for consumptive uses of wildlife within the conservancy. As mentioned earlier, in other CBNRM programs such as in Zambia and in Zimbabwe, trophy hunting operations have proved to be the ventures that optimize the use value of wildlife. In the Kunene, however, non-consumptive tourism is likely to provide greater income. Partly this is due to the marketing of the area as an eco-tourism site but also to the fact that wildlife densities of key trophy hunting species, such as elephants, are low while others are absent, such as buffaloes. Trophy hunting ventures can nevertheless provide an important source of benefits for the conservancy, as has become evident in Torra.

Last year the Torra conservancy got allocated a hunting quota (see Table 5.8). However, due to insufficient time to finalize the logistics to carry out hunting, only a part of the quota got used last year. Presently Torra is negotiating with the MET to get the

quota for last year transferred to this year. An indication of the conditionality implied in the new management regime is that Torra needs to get the quota allocations approved by the Ministry, even though it has become a legally registered conservancy.

Table. 5.8. Hunting quota for the Torra Conservancy 1998 (Source: Torra Conservancy Secretary).

SPECIES	TROPHY ANIMALS	OTHER USE	TOTAL
BABOON	10	0	10
ELEPHANT	1	0	1
GEMSBOK	10	30	40
KUDU	5	5	10
MOUNTAIN ZEBRA	5	5	10
OSTRICH	5	5	10
SPRINGBOK	20	310	330
STEENBOK	5	0	5

Last year, Torra started negotiating with a professional hunter who runs a trophy hunting operation, about utilization of the trophy animal quota, and last year the hunter utilized part of that quota. Presently the CMC is finalizing a more extensive agreement with this professional hunter, for this year's trophy hunting. The trophy hunting part of the quota is worth N$101,000 when sold to the professional hunter. Thereof, only the right to hunt the one elephant in the quota is worth N$ 60,000. Included in the contract with the hunter is also the training of local people as hunting guides. The contract is for one year to begin with, as the management committee wanted to see how the hunter would carry out his obligations before entering into a long-term contract. Trophy hunting therefore represents a high use value of wildlife in the area. As mentioned above, it is important that the trophy hunting be carried out with sensitivity to enhance the compatibility of the consumptive and non-consumptive uses of wildlife in the area.

The quota allocated in the 'other' category can be used by the community as it sees best fit. This can be in the form of community hunts, which do not present good use value as the hunts are expensive to carry out and hardly break even after costs of vehicles and ammunition has been paid for. The community can also sell this part of the quota to sport hunters, or sell as live game to other areas. How the quota is allocated each time will thus depend on how the conservancy decides its interests are best served or according to the preferences of the community.

- **Other benefit issues**

Torra also has several other benefits-generating activities lined up. Another tour operator has been operating in the area for several years under government permission. The Torra conservancy committee has been negotiating with this operator to start benefit-sharing with it in exchange for the resources he has access to in the conservancy. This has yielded positive results and the camp operator has responded positively about going into a venture with the community. The bid is also open for operations in the Poachers Camp area. Other potentials include, as mentioned above, community campsite operations and making and selling handicrafts.

An additional issue mentioned in the list is the PTO rentals. The allocations of PTOs has caused some confusion in many of the conservancies. This has been the case in Torra, as some conflicts have arisen. Torra has decided that all PTOs for the area will be issued in the name of the conservancy, which can then extend them or rent them to people who want to carry out operations in the area. This way the CMC feels that it is ensured that PTOs for prime areas are not issued to people who will not develop the site properly and optimize the land use. This has, however, caused some conflicts within the community as some local entrepreneurs feel that they should have rights to get PTOs.

The members of the Torra Conservancy are starting to ask what happened to the money from the joint venture, since to date no financial benefits have been distributed back to the community, but the money has instead been sitting in a bank account (Jones 1998). Due to the ongoing boundary dispute, an equitable distribution plan has not been finalized. However, employment has been created in the community and meat from community hunts and trophy animals has reached most of the households. The conservancy also bought a photocopier for the school. Even though people perceive of the meat and employment as benefits, there has been some noticeable restlessness, as the people know that a considerable amount of money is waiting in the bank account. Thus, a top priority with the Torra CMC is presently to finalize the benefit distribution plan and close the issue of the disputed farms to enable the community members to start receiving financial benefits.

5.3.3. Local Perceptions of Benefits and Positive aspects of the conservancy

A number of questions in the Torra conservancy household survey were directed to people's attitudes towards current and potential benefits of the conservancy. The main results to be drawn from these questions are presented below. As a starting point, participants seemed to think that in general wildlife is of some benefit to them.

Table 5.9. Results for the question: Is wildlife of any benefit to people?

IS WILDLIFE OF ANY BENEFIT TO YOU?		
	FREQUENCY	PERCENT
YES	46	76.7%
NO	14	23.3%
TOTAL:	60	100%

People were given a list of benefits that had been identified as important in the conservancy formation in Namibia and asked to assign a number of 1-10 to each of these benefits, depending on the level of importance they assigned to them (Table 5.10).

Table 5.10. Perceptions of benefits from wildlife-related opportunities.

BENEFITS OF WILDLIFE-RELATED OPPORTUNITIES		AVERAGE VALUE	STANDARD DEVIATION
MOST IMPORTANT (VALUE 9-10)	• Children will see wildlife in the future	9,55	0,964
IMPORTANT (VALUE 7-8)	• Jobs	8,917	1,499
	• Training, skill development and improved capacity in the community	8,733	1,903
	• Better management	8,633	1,895
	• Collective community income from tourism and wildlife ventures	7,4	2,374
	• Increased community empowerment	7,333	2,08
	• Potential income from selling crafts and service to tourists	7,233	2,520
NEUTRAL/MEDIUM IMPORTANCE (VALUE 5-6)	• Increased number of wild animals in the area	6,4	2,669
NOT IMPORTANT (VALUE 3-4)			
LEAST IMPORTANT (VALUE 1-2)			

The greatest emphasis is on an intangible benefit, i.e. that children will be able to see wildlife in the future. It ranks with a 9.5 average and a low standard deviation, indicating that this view was prevalent among respondents. Also seen as important benefits are jobs, training and improved capacity and better management of natural resources, and shortly below that collective income for the community. It is also

interesting to see that increased numbers of wild animals does not seem to be a benefit of particular importance among respondents, despite the fact that people feel it is very important for the children to see wildlife in the future.

To measure further the benefits of indirect use value of wildlife to people, e.g. the aesthetic values, people were asked about whether they liked to see wildlife and if they felt it was important to conserve wildlife for future generations.

As can be seen, an overwhelming majority of people responded to this in a positive manner. This indicates that people draw a significant with of utility from living among wildlife and that the opportunity for them and their children to see wildlife represents an important intangible benefit although whether it would supersede direct material benefits is debatable.

Table 5.11. Survey results related to cultural values of wildlife.

CULTURAL VALUES OF WILDLIFE				
		Agree / strongly agree	Neutral	Disagree / strongly disagree
I TAKE PLEASURE IN SEEING WILDLIFE	Freq.	56	3	1
	%	93.3%	5%	1.7%
CONSERVATION OF WILDLIFE IS IMPORTANT FOR FUTURE GENERATIONS	Freq.	57	0	3
	%	95%	0%	5%

- **Tangible benefits from wildlife**

When it came to asking about the tangible benefits people felt they had received, the attitudes were quite different. When people were asked if they felt that the formation of the conservancy in the area had increased their income, 70% felt that it had not increased their income (Table 5.12). When asked if the respondents felt that they had *not* had any opportunities to benefit from wildlife-related opportunities such as tourism, more people thought this was the case than not. So far, people seem not to have had a lot of opportunities to attain direct financial benefits from the conservancy.

Table 5.12 Survey results related to conservancy formation and present income.

DO YOU FEEL FORMATION OF THE CONSERVANCY IN THE AREA HAS INCREASED YOUR INCOME?		
	FREQUENCY	PERCENT
YES	18	30%
NO	42	70%
TOTAL:	60	100%

The survey examined the benefits the households have received from conservancy-related activities in the form of employment. No single category or type of employment provided the households in the Torra conservancy with substantial benefits. However, a variety of jobs has been created and provided some households with income. The employment people mentioned as beneficial to their household included employment in a tourism lodge, jobs as hunting guides or wildlife/safari guides, making and selling handicrafts and other items to tourists, or selling goods such as firewood to a lodge. Also, some provided services to a lodge such as laundry, and finally some were employed as community game guards. These benefits included both full-time jobs and income from part-time employment. Although only a few households mention each of the categories, it is nevertheless important when considering the scarcity of other job opportunities in the area.

Generally, people seem to be interested in and have the time for more employment than they already have. However, the actual number of job opportunities is limited and many regarded that as a great obstacle for having access to employment related to the conservancy. Other obstacles to job opportunities were lack of information and preference being given to outsiders[2]. Lack of skills and the fact that people lived too far away from where job opportunities are offered were also factors, but were less important to people.

- **Anticipated Benefits**

Even though people seem slightly negative towards wildlife-related benefits received so far, they seem to be optimistic about the future. 76.7% of participants believed that they would in the future have income from wildlife-related development such as tourism. Only 8.4% of respondents were skeptical that they would receive any such income in the future. Here, one has to take into account that the benefits that have already reached the communities are income from employment, which only benefits a few households. People are hopeful that household dividends or collective income will be distributed in the nearest future.

[2] Since all who are employed in the area by either the conservancy or IRDNC in relation to the CBNRM program are from the Torra conservancy, it is possible that people define "outsiders" as individuals from other communities then their own, but within the conservancy.

Table 5.13. Survey results related to present access to benefits and future anticipation.

PRESENT ACCESS TO BENEFITS AND FUTURE ANTICIPATIONS				
		Agree / strongly agree	Neutral	Disagree / strongly disagree
I FEEL THAT I HAVE NOT HAD ANY OPPORTUNITIES TO BENEFIT FROM WILDLIFE-RELATED OPPORTUNITIES SUCH AS TOURISM	Freq.	29	11	20
	%	48.3%	18.3%	33.3%
I BELIEF THAT IN THE FUTURE I WILL HAVE INCOME FROM WILDLIFE-RELATED DEVELOPMENT SUCH AS TOURISM	Freq.	40	9	5
	%	76.7%	15%	8.4%

These positive attitudes towards future income were also evident in other questions of the survey. When asked directly if they believed that the formation of the conservancy is likely to increase their income in the future, 63.3% believed it would (see Table 5.14). On average people hoped that the conservancy would increase their income by N$1500-2000 per year.

Table 5.14. Survey results related to conservancy formation and anticipated future income.

DO YOU FEEL FORMATION OF THE CONSERVANCY IS LIKELY TO INCREASE YOUR INCOME IN THE FUTURE?		
	FREQUENCY	PERCENT
YES	38	63.3%
NO	22	36.7%
TOTAL:	60	100%

Table 5.15. Survey results related to expectations for future benefits from the conservancy.

IN WHAT WAY DOES PEOPLE EXPECT THAT THE CONSERVANCY AND WILDLIFE-RELATED DEVELOPMENT PROJECTS WILL BENEFIT THEM IN THE FUTURE?		
	FREQUENCY	PERCENT
EMPLOYMENT, JOBS	24	40.0%
MORE COMMUNITY DEVELOPMENT	16	26.7%
BETTER WILDLIFE MANAGEMENT	6	10.0%
INCREASED WILDLIFE	5	8.3%
TRAINING TO MAKE CRAFTS	3	5.0%
HELP US WITH MONEY	3	5.0%
HELP WITH WATER POINTS	2	3.3%
DON'T KNOW	1	1.7%
TOTAL:	60	100%

People were also presented with an open-ended question asking in what way they thought the conservancy would benefit them in the future. As can be seen in table 5.15,

40% mentioned jobs, and over 26% mentioned community development. This indicates that the anticipation of such tangible benefits is quite high and might cause disappointment if hopes are not met. Other mentioned that the conservancy could help with money and water points, while more than 18% mentioned better management of wildlife and increased wildlife in the area as a future expected benefit.

5.3.4. Local perceptions of costs of wildlife and negative aspects of the conservancy

Occurrence of wildlife damage to people and infrastructure in the Torra conservancy has decreased in recent years according to the field officer. Elephant damage used to be more frequent than it is today. The MET has assisted in controlling the elephant problem and to build protection walls to prevent water point damage (see photo 5.5), and an elephant dam at one location. However, the story goes that elephants get suspicious when humans do not drink from the dam, and therefore they continue to drink from the community boreholes. Elephant damage to gardens also occurs as the elephants tear up the food plants people are growing. One thing mentioned by the field officer was that people who are used to these problems do not seem to mind and accept this as part of life when living with elephants.

Problems from predators have also been decreasing in recent years. Lions used to be a problem but they have almost moved entirely out of this area. The greatest problem they have in Torra is with the spotted hyenas killing livestock. Another problem is the compatibility of livestock and wildlife grazing, and there have been some problems with people failing to recognize areas that have been set aside for wildlife, thus undermining the management efforts.

In the survey people were asked to rank the costs of wildlife-related opportunities, in the same manner as with the benefits. It is evident from this that overall, people seem to assign relatively little relevance to the costs of wildlife. However, as can be seen the standard deviation is rather high in all categories, indicating a high variation in perceptions of costs. Thus many people rank certain costs as high while others do not.

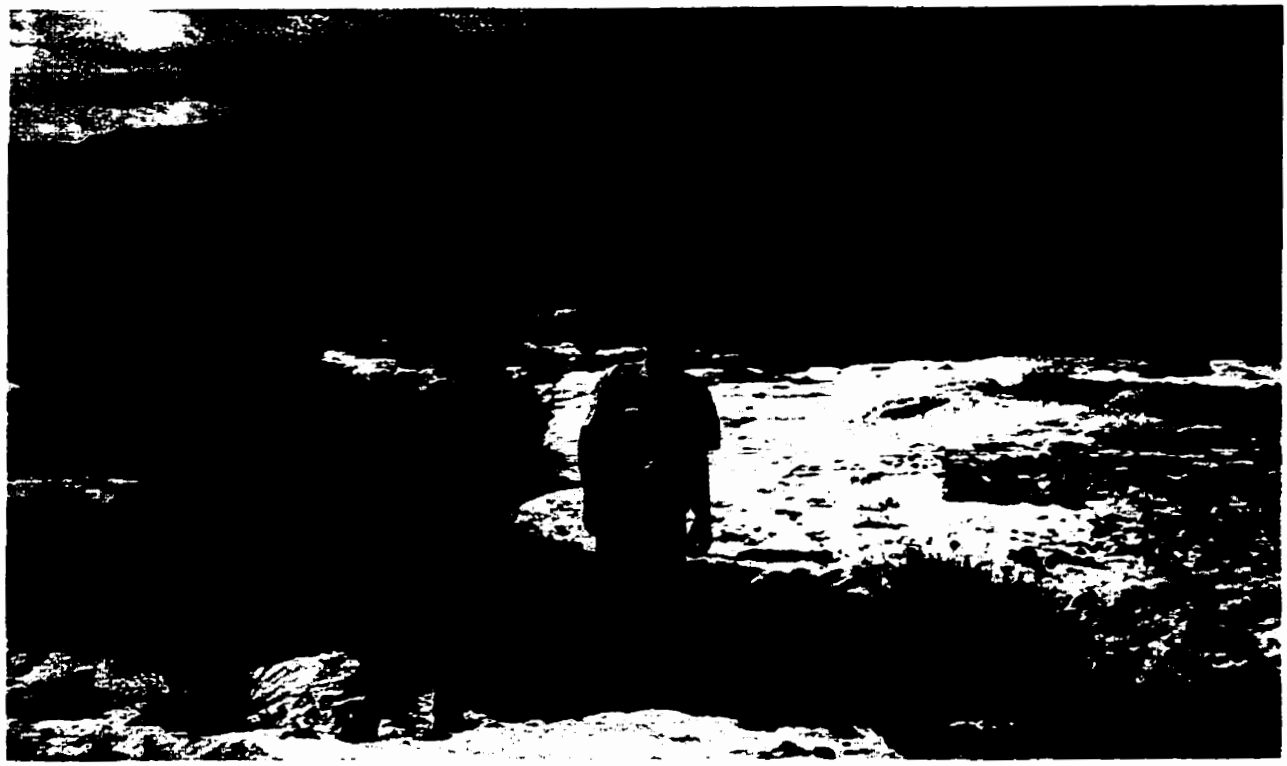

Photo 5.9. A community game guard and the Torra conservancy Field Officer on patrol in their area.

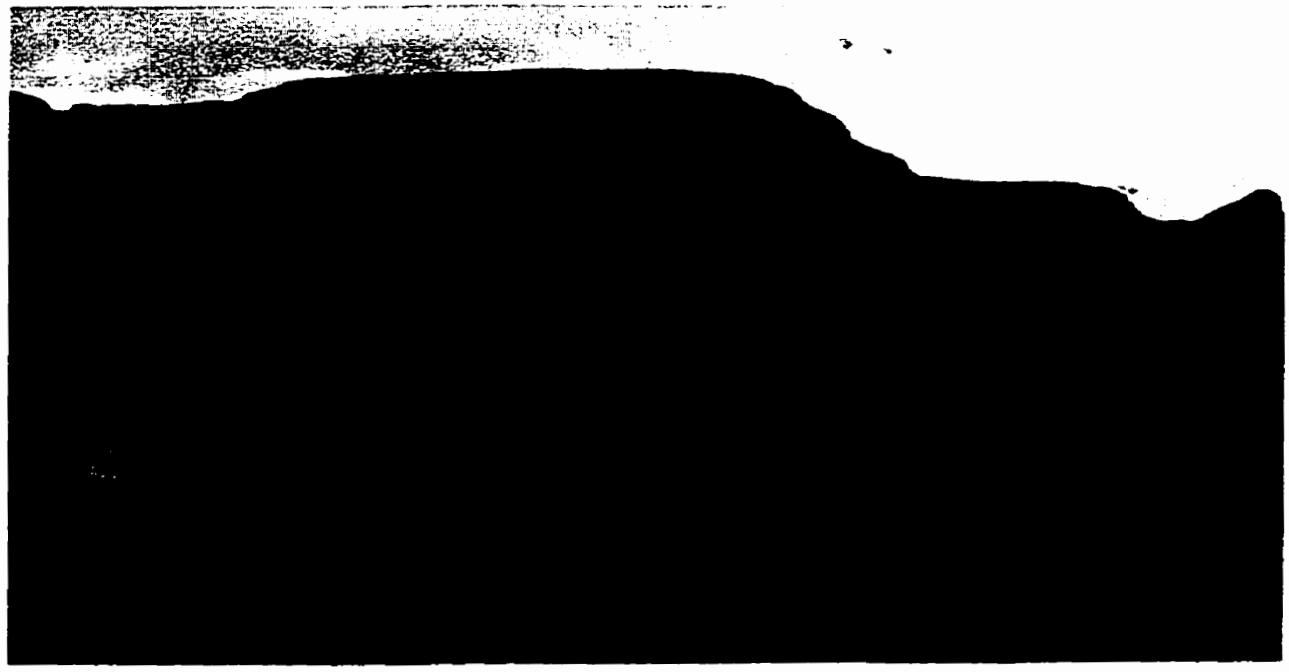

Photo 5.10. The Damaraland Camp, a joint venture in Torra conservancy. The camp is an up-market luxary lodge.

Photo 5.11. A concrete wall built around a water point to prevent damage from elephants, at a farm in the Torra conservancy.

Photo 5.12. Waiting in line for game meat at a community meeting in Bergsig in the Torra conservancy.

Table 5.16. Survey results related to costs of wildlife-related opportunities.

COSTS OF WILDLIFE-RELATED OPPORTUNITIES		AVERAGE VALUE	STANDARD DEVIATION
MOST IMPORTANT (VALUE 9-10)			
IMPORTANT (VALUE 7-8)			
NEUTRAL/MEDIUM IMPORTANCE (VALUE 5-6)	• Too many tourists coming to the area	6,328	3,374
	• Investment of your own time in setting up community enterprises	5,667	2,927
	• Disturbance of traditional ways of living	5,517	2,937
NOT IMPORTANT (VALUE 3-4)	• Competition between livestock and wildlife for water and grazing	4,867	2,501
	• Increased community conflicts	4,831	2,811
	• Increased wildlife threats to human lives	4,797	3,05
	• Destabilizing existing land use practices	4,593	3,08
	• Grazing land lost to wildlife conservation	4,283	2,565
	• Wildlife damage to water points	4,233	3,18
	• Wildlife damage/predation of livestock	4,2	3,068
	• Wildlife damage to crops/food gardens	3,967	2,946
	• Closure of prime areas, restricting the collection of firewood	3,55	2,375
LEAST IMPORTANT (VALUE 1-2)			

High value assigned to too many tourists coming to the area is interesting, in particular in light of the fact that most people are likely to benefit from tourism-related activities. This indicates that sensitivity in tourism development in the area should be practiced so as to reduce impacts of tourism on traditional ways of life. If tables 5.10 and 5.16 are compared, it becomes evident that people give the benefits higher overall values than the costs, indicating a rather positive overall attitude.

Table 5.17. Survey results related to perspectives on costs of wildlife

PERSPECTIVES ON COSTS OF WILDLIFE		Agree / strongly agree	Neutral	Disagree / strongly disagree
WILDLIFE AFFECTS ME IN A NEGATIVE WAY	Freq.	31	14	15
	%	51.7%	23.3%	25%
I FEEL THAT THE BENEFITS FROM WILDLIFE OUTWEIGH THE COSTS	Freq.	17	20	23
	%	28.3%	33.3%	38.3%
I FEEL THAT WILDLIFE UTILIZATION CAN BE COMBINED WITH LIVESTOCK RAISING IN THE AREA	Freq.	20	20	19
	%	33.8%%	33.8%	31.7%

It is interesting that a rather high number of people, 51.7%, feel that wildlife affects them in negative way. This could be due to a number of factors. As noticed in table 5.16, the standard deviation is high in the perception of costs while the mean is low. Not everybody loses livestock to predators, and elephant damage to gardens and water points

occurs mostly in certain areas. This could indicate that people accept the costs of living with wildlife but are negatively affected in different ways. It is also interesting that at this point in the conservancy, people are divided on whether the benefits outweigh the costs as the distribution is quite even (see Table 5.17). This might change in the near future as people receive further benefits and their benefit/cost relationships change.

Table 5.18. Survey results related to wildlife and livestock competition for grazing.

DO LIVESTOCK AND WILDLIFE COMPETE FOR GRAZING?		
	FREQUENCY	PERCENT
YES	26	43.3%
NO	33	23.3%
MISSING VALUE	1	1.7%
TOTAL:	60	100%

Table 5.19. Survey results related to grazing if wildlife in CWA.

WILL YOU GRAZE YOUR LIVESTOCK IN AN AREA SET ASIDE FOR WILDLIFE?		
	FREQUENCY	PERCENT
YES	12	20%
NO	47	78.3%
MISSING VALUE	1	1.7%
TOTAL:	60	100%

Access to grazing and compatibility of wildlife and livestock as a land use have been issues in Torra Conservancy, in particular since Torra has started to practice land use zoning, thus closing off areas. It is therefore interesting to note that a high number of people believe that wildlife and livestock compete for grazing. Furthermore 31,7% disagree with the statement that those two land uses can be combined in the area. This can also be examined in the light of the fact that relatively few saw increasing wildlife numbers as an important benefit. However, only 12 said that they would actually graze their livestock in an area set aside for livestock and of these 8 mentioned that they would do so only in circumstances where no other grazing areas were available. It should be noted here that the aim of the conservancy is not to replace livestock with wildlife as an existing land use but rather to integrate the two.

5.3.5. Perceptions of ownership, rights and responsibilities

Several variables were meant to measure people's attitudes towards ownership of the wildlife resource and rights and responsibilities of management as well as people's participation in the conservancy process. People were rather positive about having been

well informed about the conservancy and wildlife-related opportunities in the community. 55% of respondents strongly agreed to this, while 33% either disagreed, or disagreed strongly. Overall, people were positive towards the performance of the conservancy committee as 61,7% felt that it had represented their interests in the development and management of the conservancy while 25% disagreed, potentially indicating a frustration over the delay in distributing financial benefits to the community.

People seem to have faith in the influence the conservancy has over the management of the wildlife resource in the area, as illustrated in table 5.20, where 63,3% feel that the conservancy has the most say over the wildlife resource in the area. When asked if they had any different preferences for wildlife management, it was generally belived that government deserve less power, and some pointed to the traditional authorities (see Table 5.21).

Table 5.20. Perceptions of ownership.

WHO HAS THE MOST SAY OVER THE WILDLIFE RESOURCE IN THIS AREA?		
	FREQUENCY	PERCENT
THE CONSERVANCY MANAGEMENT	38	63.3%
GOVERNMENT	15	25%
THE TRADITIONAL AUTHORITIES	5	8.3%
NGO'S	2	3.3%
TOTAL:	60	100%

Table 5.21. Perceptions of preferred ownership

WHO WOULD YOU LIKE TO HAVE THE MOST SAY OVER THE WILDLIFE RESOURCE IN THIS AREA?		
	FREQUENCY	PERCENT
THE CONSERVANCY MANAGEMENT	41	68.3%
GOVERNMENT	9	15%
THE TRADITIONAL AUTHORITIES	9	15%
NGO'S	1	1.7%
TOTAL:	60	100%

Table 5.22. Survey results related to responsibilities and rights over management.

PERSPECTIVES ON MANAGEMENT AND CONSERVATION ISSUES				
		Agree / strongly agree	Neutral	Disagree / strongly disagree
COMMUNITY MEMBERS ARE RESPONSIBLE FOR THE CONSERVATION OF WILDLIFE IN THE AREA	Freq.	47	4	9
	%	78.3%	6.7%	15%
I FEEL THAT I HAVE SOME CONTROL OVER THE MANAGEMENT OF WILDLIFE	Freq.	37	11	12
	%	61.7%	18.3%	20%

It is evident that people also realize the importance of the community's role in conserving wildlife in the area. Altogether 78,3% of participants agreed when asked if they felt that the community members were responsible for the conservation of wildlife in the area. Furthermore, people seem to have a sense of power over wildlife and were on the whole rather positive towards their sense of control over the management of wildlife. When asked if they felt that they had some control over the management of wildlife in the area, almost 62% either agreed or strongly agreed, 18% were neutral towards the question and 20% disagreed.

5.3.6. Summary

It can be concluded that both intangible and tangible benefits seem important for the people of Torra. While some households have benefited from employment related to wildlife activities or tourism, most have not. However, until now, cultural values seem to have played a strong part in the perceived benefits derived from the conservancy, such as seeing wildlife and conserving wildlife for future generations. The survey indicates, however, a strong anticipation in the conservancy that it will in the future provide people with more tangible benefits such as increased employment, community development and increased household income. Even though Torra is further ahead in its process than Ehirovipuka, the strongest perceptions gathered are still concerning anticipated benefits.

Overall people assign relatively little importance to the costs and negative aspects of wildlife and related opportunities, although a number of people see wildlife damage as very important. This indicates that compensation mechanisms in the distribution of benefits are likely to be important.

Torra is presently working on finalizing its benefit distribution plan and will shortly take a draft back to the people for their comments and inputs. The emphasis will be on dividing the income between households and community development projects, as well as aiming to address the needs of those that have been negatively affected. It might in some cases be difficult to meet everybody's demands. It is, however, crucial that the equitable distribution plan reflect real needs and perceptions in the community to ensure and sustain support by the community.

5.4. CONCLUSIONS - RESPONSIBILITIES, EXPECTATIONS AND REALITY

With the new policy and legislation the Namibian CBNRM program has introduced a new common property institution in communities that seems to be socially and culturally acceptable to the community members of the conservancies. The conservancy institutions enhance values of participation and equity in common property resource management of wildlife. Essentially, people see this new management regime as potentially beneficial for them. It is evident that the common property regime established in Namibia entails more than rights to receive the benefits from the resource. The rights devolved to the community level entail another category of non-financial benefits accruing to the resource user in forms of increasing community empowerment, the sense of ownership over the resource, and strengthening capacities to take on future development in the areas. These benefits seem to be perceived by the community members and remain an important element in the approach.

Originally the IRDNC program gave local people responsibility for protecting wildlife. This recognition of responsibility, which Durbin et al. (1997) point out can be interpreted as ownership on a cultural rather than an economic level, was effective in promoting game conservation despite the absence of direct benefits. Although the fundamental basis for the conservancy program is taking responsibility for the wildlife and its management, it can be concluded from the data at hand that people have quite strong expectations for a variety of more tangible benefits to flow in the future, i.e. that the responsibilities they have undertaken will benefit them in the long run. Durbin et al. (1997) identified a number of factors as reasons behind increased expectations for more tangible benefits, and these factors have to a large extent been confirmed in this research. Those are:

- While the motivation of a conservation ethic was an appropriate starting point, there is a time frame over which there is an expectation that conservation investments should produce economic returns.
- A new generation of youth is now emerging which demands economic development and job creation to enable young people to remain in the areas. If the program is to maintain its support, it would have to shift into a mode that would reflect that emphasis.

- Increasing population pressure in the areas and the resultant land pressure and plans for other land uses means that there is increasing competition for land and there is a need to make wildlife and tourism more economically competitive with other land uses.
- The program has led to increased wildlife numbers leading to increasing wildlife damage and exacerbating conflicts between wildlife, livestock and people. These conflicts bring into sharp relief a cost/benefit accounting in people's minds and it becomes clear that delivering wildlife values to those who bear the costs of the wildlife presence is an essential component for the program in the future.

The interplay of rights and responsibilities and the actual tangible benefits is important and deserves close attention. As a community develops its conservancy, it is likely that the expectations will shift towards increasing emphasis on receiving actual tangible benefits, as a high anticipation for jobs and community development prevails to some extent in Torra and was also emphasized in Ehrovipuka. Jones (1999) points out that the prospect of improved livelihoods and diversification in rural economies has sustained community commitment to wildlife conservation, particularly in the face of a dire need for jobs and cash income.

It has been estimated that the overall impacts will not be massive for each household in the conservancies in Namibia, although the impacts on households that will hold jobs could be substantial (Barnes and Ashley 1996). What level of benefits will be sufficient to sustain peoples' participation and interest in the long term in the conservancy is hard to speculate. It seems clear that people regard ownership and responsibility of wildlife management as important benefits in this context. However people seem to place high emphasis on job creation and development in the community alongside the cultural and intangible benefits. It can be concluded that in the future people will likely want to see development projects and get access to employment opportunities as rewards for their participation.

However, with regards to the anticipated economic benefits, it seems clear that people in both the Torra conservancy and Ehirovipuka conservancy have to a large extent

established the link between the use of the wildlife resource, increased tourism, and the future potential of tangible benefits. It seems therefore that the foundations of the CBNRM approach, i.e. to establish the links between sustainable use and conservation of wildlife and social and economic development, have been firmly established in these two study areas in the Kunene.

CHAPTER 6
CONCLUSIONS

The aim of this final chapter is to summarize the main conclusions from the discussion presented in this thesis. The two main research questions were the following:

- What role do property rights and the embedded incentives structure, i.e. rights, benefits and responsibilities, play in enhancing sustainable resource use at the local level?
- How do these elements interact within community-based approaches to natural resource management?

In order to shed light on these general research questions, four more specific research questions were posed within a specific ecological and social context, i.e. wildlife in Namibia.

- What is the role of CBNRM in Namibia in wildlife conservation and rural development?
- How have property rights regimes been developed in the Namibian model and what are the proposed benefits of the CBNRM program?
- How are benefits perceived at the local level, including ownership, responsibility, and cultural benefits, financial dividends, employment, etc.?
- How do the perceptions of benefits influence resource use behavior?

These research questions were addressed in two ways: reviewing the relevant literature, and conducting two case studies from the Kunene region in Namibia. The following section presents a brief overview of this discussion. First, an overview is given from the literature review in the second and third chapter of the thesis and similarly, an overview of the Namibian case study follows. Based on the analysis from the Namibian case study, the relationship between, and the role of the key elements of responsibilities, rights and benefits, in the CBNRM context are explored.

One of the objectives of this thesis was to draw more specific conclusions from the more general working hypothesis, i.e. that property rights, benefits and costs play an

important role in determining resource use behavior. These conclusions can be seen as lessons from the Namibian case study and are presented in this chapter. Finally, some reflections on CBNRM as an approach to development and conservation and the importance of property rights are provided in the last section.

6.1. SEARCHING FOR SOLUTIONS - TOWARDS COMMON PROPERTY REGIMES

Past approaches to conservation essentially relied on the separation of humans from their natural environment. The inadequacies of previous models for the circumstances in developing countries are today widely recognized (McNeely 1988, 1993, 1995, Brandon & Wells 1992, Kemf 1993, Adams & McShane 1996, Furze et al. 1996). Presently, the need for more integrated approaches where people interact with their environment and natural resources has become evident. Instead of alienating people from the resources by conservation policies, steps should be taken to incorporate their existence and needs within a larger socio-natural system. In the past 15 years various approaches have been initiated to address these issues. CBNRM and CBC have emerged within these frameworks and emphasize enhancing local participation and empowerment with the devolution of management rights and responsibilities to local communities to establish the link between responsible management and resource benefits.

It has been recognized in modern conservation strategies that where the resource does not require strict preservation, measures should be taken to utilize the resource efficiently to maximize the flow of benefits from the resource on sustainable basis. A general principle is that the benefits from resource conservation or utilization must accrue to the people who bear the cost of managing the resource, i.e. the rural communities on whose land resources exist. Peoples' perceptions of the resource benefits are important since they will determine how people regard the benefit-cost ratios of their actions, and subsequently affect their behavioral patterns. Essentially, the benefits should create an incentive structure that encourages sustainable resource use.

CBNRM as a distinctive approach involves a shift in power and management regimes. To establish the link between the conservation or sustainable use of a resource

and the benefits generated at the local level, property right regimes need to be clearly defined. The underlying tenet is that this will enhance people's sense of ownership over the resource and encourage them to undertake certain responsibilities for resource management and conservation. This entails recognition of their rights to decide how to use and benefit from the particular resource.

The conceptual basis of CBNRM lies within the expanding theories on common property resources. Common property resource institutions represent in many cases a viable mean of revitalizing local control over resources. The creation or revitalization of such social institutions must reflect certain fundamental principles, such as defined boundaries and membership, clearly defined rules including sanctions and mechanisms for distributing the benefits obtained from the resource. Common property institutions may have to be reintroduced as their functioning may have broken down in past decades. It has been clearly demonstrated that well-defined common property resource regimes can provide a means for sustainable resource use that is socially and culturally acceptable among the members of a community.

Previous African wildlife conservation policies were centrally controlled and inequitable and disregarded the interests of rural people. Recent initiatives have shifted the focus to the potential to integrate conservation of wildlife and rural development. Research has shown that in many areas, wildlife utilization and management can represent an economically efficient land use. Thus, an increasing number of African countries have adhered to the principles of CBNRM. These projects have emphasized the importance of socially acceptable institutions that allow for local participation and empowerment emphasizing the importance of equitable distribution of benefits. This new paradigm represents a fundamental step towards a more equitable and efficient management regimes where local participation and equity are enhanced.

6.2. CBNRM OF WILDLIFE IN NAMIBIA - INCENTIVES AND BEHAVIOR

With the passing of the new legislation in 1996, the CBNRM approach in Namibia has come to play an eminent role in integrating rural development and wildlife conservation in the communal areas of the country. The approach addresses the past

inequalities inherent in colonial and apartheid patterns of past governance and aims for enhancing rural development and empowerment through improved natural resource management.

In several important ways, Namibia has ventured further than earlier CBNRM approaches in devolving property rights for wildlife to local communities. A new co-management regime has been created, allowing for partnership between the government and local communities in enhancing the conservation status of wildlife. Allowance has been made for conditional use rights over the wildlife resource to be devolved to new institutions at the community level, i.e. the conservancies, which represent the community in the management of the wildlife.

The benefits for the communities embedded in the new management regime can be seen as both tangible and intangible. There is great potential to generate financial benefits from wildlife utilization in the communal areas in Namibia from various forms of tourism. It is expected that these benefits, and the rights of the communities to manage them, will sustain peoples' interests in participating in and undertaking the responsibilities of sustainable resource management.

Social empowerment embedded in the devolution of property rights has been greatly emphasized in the Namibian CBNRM program. The underlying thought is that an important benefit for communities is simply the re-establishment of a form of ownership over wildlife resource and community empowerment to partake in its management. Furthermore, training and skill development in the communities related to the CBNRM program provides various intangible benefits such as increased capacity and knowledge.

A number of interesting conclusions about the perceptions of the current and proposed benefits of the program can be drawn form the thesis fieldwork in the Kunene. First of all it was evident that people perceived of the new management regime in positive terms and envisaged a number of future benefits. It was also evident that people saw their responsibilities for wildlife management as important and linked their efforts to future benefits. Cultural values surrounding wildlife are also important and seem to provide people with important benefits, such as the potential for future generations to enjoy wildlife.

More tangible benefits, such as job creation and increased community development, are important for community members. This brings to light that while intangible benefits are perceived as real and important, there is strong anticipation that the conservancy will distribute some financial income generated from wildlife to its members. It can be speculated that this anticipation further encourages people to undertake the responsibilities inherent in the new system. However what level of tangible benefits will suffice at this level is difficult to speculate.

It is important that the distribution of any such tangible benefits is perceived of as fair by the community. Lessons from Zimbabwe and Zambia have shown that the distribution of benefits is of central importance, and that a perception of equitable distribution is often not achieved through decisions made by local levels of government or traditional authorities. The Namibian CBNRM approach attempts to address these problems by having the conservancy itself making those decisions with input from its members. Although it is too early to say whether these arrangements will sufficiently address the social reality and stratification within a given community it can be noted that the likelihood of such a perceptions of fairness are likely to increase with such direct participation in the decision making on the community's behalf. Of course, under no circumstances is an outcome reached where everybody will regard the distribution of benefits as fair, however, the challenge is to minimize the numbers of "losers", and leave no major concerns unaddressed.

People's perceptions of the rights regained by the new conservancy system and the subsequent benefits have affected their attitudes and behavior towards the wildlife resource in a positive manner. Essentially most people seem to perceive wildlife as a valuable resource and link its continuing existence on their land to the benefits received. The program is still in its early stages and to draw conclusions about the program's success in achieving its overall objectives are premature. However, by allowing for an element of property rights to be directly connected to a community institution, the Namibian policy has created a promising co-management regime in which people's sense of ownership and responsibility for the wildlife is being established.

6.3. THE RELATIONSHIP BETWEEN RESPONSIBILITIES, RIGHTS AND BENEFITS

The three concepts that underlie all previous discussions, and are of central importance in the Namibian CBNRM program, are rights, responsibilities and benefits. These three factors provide the basis for the program and in fact any CBNRM approach. The case study brings to light the interplay of these factors in people's perceptions and practice (Figure 6.1).

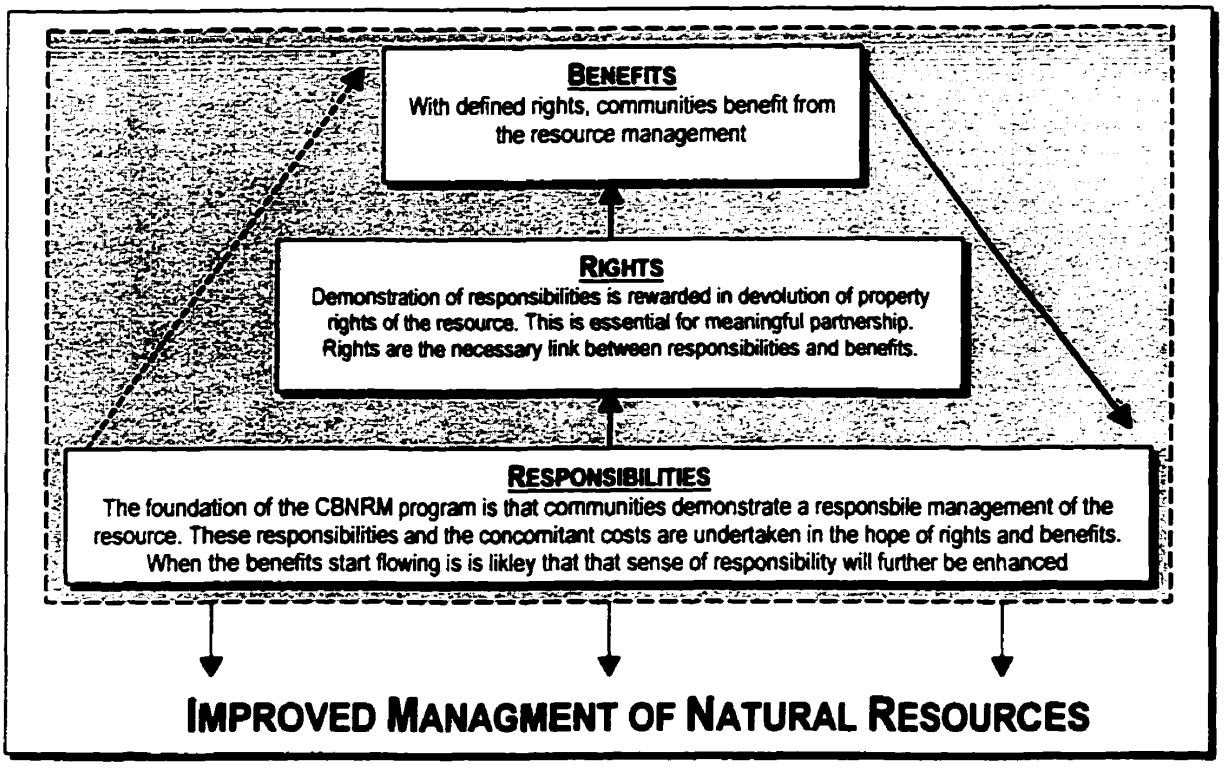

Figure 6.1. The interplay of responsibilities rights and benefits in the CBNRM program.

Figure 6.1. illustrates how defining the responsibilities has provided the basis for the development of the program. The unbroken lines illustrate causal relations, e.g. the undertaking of management responsibility leads to rights to manage and to a flow of benefits from the resource. The research indicates that the people in the two conservancies in Kunene have in important ways established that *benefits and rights are in fact linked to responsible conservation and management practices.* The flow of benefits also further enhances and sustains the communities' responsibilities in the long

run. The dotted line stands for expectations, such as the hope for future benefits, which leads individuals to undertake the required responsibilities.

If the interplay between these three factors in Kunene is examined, there is reason to believe that the CBNRM program will lead to improved natural resource management in the long run. The communities have already assumed the responsibilities, and the rights have in some cases been devolved. The management of natural resources, in this case wildlife, has already improved in Kunene, as well as being more socially acceptable in the communities. The actual benefits do not yet play the same role as they will in the long run, as community members so far only enjoy limited tangible benefits from the program. However, their commitment to the management regime is presently firmly based on intangible benefits and anticipation of future benefits.

6.4 LESSONS FOR COMMUNITY-BASED APPROACHES

The Namibian program represents an innovative attempt to devolve resource rights to local communities. Instead of relying on previous structures of local government or traditional authorities, the CBNRM approach in Namibia has set the aim of creating new self-defined, sustainable institutions for wildlife resource management at the community level. Furthermore, instead of focusing solely on the creation of economic benefits to 'bribe' local communities, the Namibian approach has placed great emphasis on social empowerment of rural communities. Regaining the power and responsibilities of wildlife management is regarded to be an important form of benefit for local people. With these distinctive characteristics, the case study in the Kunene region in Namibia provides some suggestive, through tentative lessons for community-based approaches to natural resource management.

- **When property rights over natural resources are devolved to socially and culturally acceptable community institutions, peoples' sense of responsibility and ownership over the resource is enhanced.**

It is through some form of institutions that communities define rules for the use of the resource, decide on sanctions for offenders, exclude outsiders and decide on how to use and distribute accrued benefits and income (Durbin et al. 1997). An important question in this regard is how to define the community level and, consequently, what represents a local resource management institution. In Namibia, a new common property institution was introduced to bring the rights and responsibilities as close to the local level as possible.

The CBNRM approach in Namibia has resulted in a sense of ownership over the new conservancy institution among local people and they feel involved in the process. This can be juxtaposed to other approaches that have relied on local government or traditional authorities as institutions for the new management regimes. The Namibian case indicates that by devolving conditional rights over the resource to a local institution, a sense of ownership and responsibility for wildlife management is enhanced among local people. While there are some inherent problems in establishing such a new community institution, it is believed that in the context of CBNRM, it enhances the important principles of social empowerment.

- **Devolution of property rights directly to the community level enhances the distribution of benefits and participation in the community and will more likely create a sense of equitable distribution of benefits and establish the link between the resource use and the benefits received.**

The exact meaning of the concept of participation in community-based programs has to some extent been elusive. Durbin et al. (1997) point out that the Namibian policy moves CBNRM beyond participation and benefits-sharing to the devolution of authority and the establishment of local natural resource rights regimes.

People in the conservancies feel both a part of the conservancy program and a sense that the wildlife in the conservancy is theirs. *Decisions* are taken by people at community meetings, and this gives people a sense of meaningful participation. An important factor determining people's perceptions of the benefits and costs of a certain regime is related to whether people feel that the distribution of benefits from wildlife

utilization within the community is fair. Thus, whether the benefits are in the form of development projects or household dividends is not of central importance. It is rather that the community members are free to decide in what forms the benefits are allocated. In the conservancy system, distribution of benefits is not determined by central or lower levels of government, but by the communities themselves. The condition for an equitable distribution plan in the conservancies are that they be formed with input from community members. This is likely to reflect actual and perceived needs in the community and enhances a sense of equity.

The benefits from wildlife utilization in Namibia accrue directly to the people that bear the cost of managing the resource, i.e. the rural communities on whose land the wildlife is found. Essentially the community decides upon its allocation. This seems to have been vital as it was evident that people generally relate wildlife in their area with the potential to derive benefits from tourism and other means of wildlife uses.

- **Devolving resource rights and responsibilities directly to the community level enhances important social and cultural benefits.**

Intangible benefits are further enhanced when people are enabled to participate in a meaningful way in resource management through a common property institution. By devolving rights and responsibilities to the local level, the Namibian CBNRM program empowers communities to take active charge of management and at a more general level in developing in their own communities. The Namibian case brings to light that while anticipation of tangible benefits is quite evident, people also strongly recognize and value intangible benefits such as the sense of ownership and empowerment as well as increased training and capacity in the communities. A sense of ownership can essentially be seen as an important intangible benefit of the program that encourages participation, and at the same time provides an essential component of the overall approach.

- **The Namibian case study indicates that a CBNRM approach, with resource rights and responsibilities as essential components, can provide a viable means for integrating sustainable resource use and rural development.**

It should be noted that one of the main characteristics of CBNRM as an approach is the need for flexibility and that each program has to be designed to serve within a specific ecological and social context. Therefore, the Namibian design as such can not simply be transferred to other circumstances or resources. However, the case study suggests that CBNRM approaches that built upon common property institutions can provide the mechanism upon which to build successful approaches to integrated rural development and conservation. In the case of Namibia, the program has applied the three basic factors, responsibilities rights and benefits in such a way that sustainable resource use is likely to be enhanced along with the social empowerment of rural communities.

6.5. FINAL REFLECTIONS

The use of any natural resource is an outcome of social interactions. People interact with others and their environment according to social norms and rules. Property rights theory provides an effective tool for understanding these interactions in the context of natural resource behavior and a link to developing useful policy tools. The case study from Namibia brings to light the crucial role that clearly defined property rights play in CBNRM. Essentially, the devolution of property rights enables meaningful participation and community empowerment, and at the same time establishes the link between responsible management, rights and benefits. Without some form of property rights in relation to natural resources and the process of their utilization, there is risk of failure to establish this central objective.

As CBNRM approaches proceed to be evolved around the world, there continues to be need for research in the field. A necessary prerequisite for the development and implementation of effective approaches is that the experience and lessons from the pioneering groundwork are documented in the context of the social and ecological circumstances under which CBNRM programs are carried out. The Namibian CBNRM program provides many lessons for CBNRM practitioners and theorists, and a number of areas could be addressed in future research. For example, the role of outside agencies in program implementation, the institutional structure of the CBNRM program and consideration of which factors are of greatest importance for long-term program

sustainability are all worthy of further attention. Moreover, as financial benefits start accruing to the communities, it will be interesting to examine how benefits are affecting people's participation and resource use behavior.

The Namibian case study and lessons from other countries have demonstrated that CBNRM can be a very useful tool for addressing sustainable resource use and rural development under certain circumstances. The case for CBNRM is far from proven, but it and similar approaches offer the most promising mechanism by which to address complex situations in which conflicts have arisen between resource conservation and human needs. Like any other tool for sustainable development, CBNRM has to deal with increasing population pressures and poverty, inherent inequalities and social stratification in societies. When we are faced with such complex issues the solutions to address them will need to be comprehensive and wide ranging. Finally, it can be said that CBNRM is indeed a part of such a solution and an important step in bringing together the necessary factors for modern conservation and development efforts in the new millennium.

APPENDIX 1

Guiding Questions

I. National Policy Level

Answers to the following questions will be sought at the policy level, both with reviews of policy documents as well as with interviews with policy makers, and project managers.

1. What opportunities exist for wildlife utilization in Namibia?
2. How has the policy development been with regards to policy issues related to wildlife?
3. What are the objectives of the recently established conservancies?
4. What are the main proposed benefits of wildlife related projects and how do they involve community participation?
5. What institutions dealing with wildlife management work to link the local and policy level?

II. Community Level

Answers to the following questions will be sought at the community level. They may differ to some extent from person to person, depending on the situation. Additional questions will be posed to community leaders. The methods of information gathering will be a combination of semi-structured interviews, conducted with different members of the society, using "snowball sampling" and various participatory methods and observations. Background variables will include: gender, age, income level and occupation.

1. What role does wildlife play in your life? (In what way is wildlife important to you?)
2. Do you presently have any economic income from wildlife as a resource?
    - If so, in what way?
    - Can you quantify this income?
3. Do you regard wildlife as a source of food for you and your family?
    - If yes, which species?
    - Approx. how much of your diet consists of wild game?
4. Can you explain some of the other values you assign to wildlife, beside from economic values.
5. How has your use of wildlife changed from the past to present days? (Events Calendar)
6. How do you use other natural resources in this area, e.g. for farming, gathering etc.? (Resource mapping, transact walks)

- Do you feel that wildlife has an impact on the way you use other natural resources?

7. Do you suffer any economic losses from wildlife, e.g. crop damage?
8. It has been suggested that wildlife can generate income from tourism, safari hunting etc. Do you think that such activities can be carried out here?
    - Do you think such activities could benefit you?
    - How do you think you could participate in these opportunities?
9. Have you participated in any wildlife related projects?
10. Would you like to participate (further) in wildlife related development projects?
    - If yes, how would you like to be involved in future projects?
11. What do you think are the main obstacles for utilizing wildlife in your community, e.g. government policy, conservation, community perceptions etc.?
12. Do you feel that conservation efforts in the past have had negative or positive effects on your use of the wildlife resource?
13. Do you feel that wildlife is abundant in your area?
14. Who do you feel has the control and ownership of wildlife in the area, e.g. the people in the community, government or conservation groups?
15. Do you think that the community could be more involved in the resource management?
    - Do you feel you should have more control over the management of wildlife in this area?
    - What kind of management would you suggest could be implemented for wildlife?
    - Which of the local institutions do you think could be beneficial for such community management?
16. Is there anything else you feel that is important in relations to your use and views towards wildlife?

Additional questions for community leaders/elders

1. What roles have traditional systems of wildlife management played in the past, and to what extent are they still functional?
2. How do you think that the benefits from wildlife utilization would be distributed in the community?
3. Are there any specific institutions that would serve such distribution purposes?
4. As a community leader (elder), how do you see the future development of wildlife projects benefit the community in the long run?

Local Perceptions of Benefits and Costs in Torra Conservancy
-HOUSEHOLD SURVEY-

1. HOUSEHOLD INFORMATION

1 Gender of household head ☐ Male ☐ Female

a The respondent is ☐ Head of household ☐ Other

2 Age of Head of household years

3 Employment or main activity of household head

4 No of years spent in school by household head 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16+ (Circle only, one)

5 Number of people in household

Youth <15 years	
Women 15-65 years	
Men 16-65 years	
Men >65 years	
Women >65 years	

2. TRADITIONAL AUTHORITY

5 Is there a headman in the area? (Circle only, one)

Yes	1	No	2

6 If yes mention his name?

7 What is your view on the headman's command in the society? (Circle only, one)

Very High	1
High	2
Moderate	3
Low	4
Very Low	5

8 Are you of the same ethnic grouping as the headman? (Circle only, one)

Yes	1	No	2

9 In what activities does the Headman show his authority? (Circle only, one)

ACTIVITY	YES	NO
Allocation of grazing land	1	2
Arbitration of disputes	1	2
Protecting community projects from destruction	1	2
Assisting Conservancy Management in enforcing decisions	1	2
Other, specify	1	2

3. WILDLIFE MANAGEMENT

10 Is there areas set aside for wildlife to graze? (Circle only, one)

Yes	1	No	2

11 If yes, who decides which areas should be left aside for wildlife only to graze? (Circle only, one)

	Circle
Community	1
Government	2
Headman	3
Torra Management Committee	4
Non Governmental Organisations	5

12 Do you have a say where wildlife should be? (Circle only, one)

Yes	1	No	2

13. How do you regard wildlife? (Please circle only one in each row/line, with 1 = the lowest value, 5 = neutral/middle value and 10 = the highest value)

As having economic value	1	2	3	4	5	6	7	8	9	10
As a source of income	1	2	3	4	5	6	7	8	9	10
As having cultural value	1	2	3	4	5	6	7	8	9	10
As a source of food	1	2	3	4	5	6	7	8	9	10
Other values, specify	1	2	3	4	5	6	7	8	9	10

14. Is wildlife of any benefit to you? (Circle only, one)

Yes	1	No	2

15. If yes, what benefit?

16. Who do you feel has the most say over the wildlife resource in this area? (Circle only, one)

Government	1
The Conservancy Management	2
Private tourism operator	3
Non Governmental organisations	4
The traditional authorities	5
Individuals within the community	6
Nobody	7
Other, specify	8

17. Who would you like to have the most say over the wildlife resource in this area? (Circle only, one)

Government	1
The Conservancy Management	2
Private tourism operator	3
Non Governmental organisations	4
The traditional authorities	5
Individuals within the community	6
Nobody	7
Other, specify	8

18. Please answer the following questions by assigning a value to them from 1-5 with 1 = Strongly Agree and 5 = Strongly Disagree (Circle one per row/line)

	Agree		Neutral		Disagree
a. Conservation of wildlife is important for my livelihood	1	2	3	4	5
b. Conservation of wildlife is important for future generations	1	2	3	4	5
c. I take pleasure in seeing wildlife	1	2	3	4	5
d. I feel that wildlife affects me in a negative way	1	2	3	4	5
e. I feel that the community members are responsible for the Conservation of wildlife in the area	1	2	3	4	5
f. I feel that I have some control over the management of wildlife	1	2	3	4	5
g. I feel that community members should be allowed to hunt wild game for their subsistence	1	2	3	4	5
h. I feel that wildlife utilization can be combined with livestock raising in this area	1	2	3	4	5
i. I feel that the benefits from wildlife outweigh the costs	1	2	3	4	5

4. LIVESTOCK

19. Do you own any livestock? (Circle only, one)

Yes	1	No	2

20. If yes, which kind of livestock and how many? (Circle the appropriate column and enter number)

Livestock	Circle	Number
Cattle	1	
Sheep	2	
Goats	3	

Horses	4	
Donkey	5	
Other, specify	6	

21 From whom, do you seek permission to graze your livestock, when you need emergency grazing ?(Circle only, one)

Don't need permission	1
Traditional Headman	2
Farm Management Committee	3
Community	4
Government	5
Other, specify	6

22 Do livestock and wildlife compete for grazing ?(Circle only, one)

Yes	1	No	2

23 Which do you prefer ?(Circle only, one)

Wildlife	1
Livestock	2
Both	3
None	4

24 Give reasons for your answer above ?

25 Will you graze your livestock in an area set aside for wildlife ?(Circle only, one)

Yes	1	No	2

26 If yes Why ?

27 Are you a member of any of the following organisation ?(Circle only one)

Conservancy	1
Farmers Association	2
Both	3
No	4

28 Do this organisations helps you in any way ? (Circle only ,one)

Yes	1	No	2

29 If yes, how?

Organisation	Help	How do they help?
Conservancy	Yes, No	
Farmers Association	Yes, No	

5. INCOME

30 What are the main sources of livelihood for your household (Rank only the three most important. Please rank using 1, 2, or 3, where 1 is the main source)

SOURCE	RANK
Monthly Salary	
Income from casual Odd jobs	
Crops/Garden	
Livestock	
Cultivation/Livestock farming	
Veldfood	
Trade (e.g shop)	
Other source, specify	

33 What is the household's estimated level of financial income per month? (Circle only one)

0-500	1
501-1000	2
1001-1500	3
1501-2000	4
2001-2500	5
2501 or more	6

34 Does your household have any income/employment from the following? (Please, rank from 1 very much, 2 much, 3 somewhat little, 4 very little, and 5 not at all. Circle one per row, only.)

Employment in a tourism lodge	1	2	3	4	5
Community game Guards	1	2	3	4	5
Making handicrafts	1	2	3	4	5
Community resource monitors	1	2	3	4	5
Hunting guide	1	2	3	4	5
Employment at a community campsite	1	2	3	4	5
Wilderness safari/wildlife guide	1	2	3	4	5
Providing services e.g. laundry to a lodge	1	2	3	4	5
Selling goods, e.g. firewood to a lodge	1	2	3	4	5
Selling items to tourists	1	2	3	4	5
Other employment which	1	2	3	4	5

35 Which member of your household?

Employment *How [illegible]* *Income per month*

36 What do you think are the main obstacles for you and the members of your household to have access to these job opportunities? (Please rank in an order of importance with 1 most important obstacle, 2 important obstacle, 3 not much an obstacle, 4 very little obstacle, 5 not an obstacle at all. Circle one per row.)

Too few opportunities	1	2	3	4	5
I live too far away	1	2	3	4	5
Not enough skills	1	2	3	4	5
Lack of information	1	2	3	4	5
Not enough time to spare	1	2	3	4	5
Preference is given to outsiders	1	2	3	4	5
Not interested	1	2	3	4	5
Language problems	1	2	3	4	5
Other obstacles, which	1	2	3	4	5

37 Approximately how much yearly income would you expect to have from the conservancy and wildlife related opportunities in the future? (Circle only one)

0-500	1
501-1000	2
1001-1500	3
1501-2000	4
2001-2500	5
2501 or more	6

38 What was your income before the conservancy was established? (Circle only one)

0-500	1
501-1000	2
1001-1500	3
1501-2000	4
2001-2500	5
2501 or more	6

39 Do you feel formation of the conservancy in the area increased your income? (Circle only, one)

Yes	1	No	2

40 Do you feel formation of the conservancy is likely to increase your income in the future? (Circle only, one)

Yes	1	No	2

6 BENEFITS

41 Is wildlife of any benefit to you? (Circle only, one)

Yes	1	No	2

42 If yes, of what benefit is it?

43 Is the benefit from wildlife more than livestock benefit? (Circle only, one)

Yes	1	No	2

44 Why?

45 Wildlife related opportunities can have many costs and benefits for each community and households. Which of the following costs/benefits are important for you? (Rank from 1 least important, 5 neutral/middle important to 10 most important. Circle only one per row/line)

a)

BENEFITS										
Better Management	1	2	3	4	5	6	7	8	9	10
Jobs	1	2	3	4	5	6	7	8	9	10
Collective community income from tourism and wildlife revenue	1	2	3	4	5	6	7	8	9	10
Increased community empowerment for more control over wildlife	1	2	3	4	5	6	7	8	9	10
Increased numbers of wild animals in the area	1	2	3	4	5	6	7	8	9	10
Training, skill development and improved capacity in the community	1	2	3	4	5	6	7	8	9	10
Potential income from selling crafts and services to tourists	1	2	3	4	5	6	7	8	9	10
Children will see wildlife in the future	1	2	3	4	5	6	7	8	9	10
Other, specify	1	2	3	4	5	6	7	8	9	10

b)

COSTS										
Wildlife damage to crops/food gardens	1	2	3	4	5	6	7	8	9	10
Wildlife damage/predation of livestock	1	2	3	4	5	6	7	8	9	10
Wildlife damage to water points	1	2	3	4	5	6	7	8	9	10
Increased wildlife threats to human lives	1	2	3	4	5	6	7	8	9	10
Investment of your own time in setting up community enterprises	1	2	3	4	5	6	7	8	9	10
Competition between livestock and wildlife for water and grazing	1	2	3	4	5	6	7	8	9	10
Grazing land lost to wildlife conservation	1	2	3	4	5	6	7	8	9	10
Closure of prime wildlife areas, restricting the collection of firewood	1	2	3	4	5	6	7	8	9	10
Increased community conflicts	1	2	3	4	5	6	7	8	9	10
Too many tourists coming to the area	1	2	3	4	5	6	7	8	9	10
Disturbance of traditional ways of life	1	2	3	4	5	6	7	8	9	10
Destabilising extractive land use practices	1	2	3	4	5	6	7	8	9	10
Other specify	1	2	3	4	5	6	7	8	9	10

46 In what way do you expect that the conservancy and wildlife related development projects will benefit you in the future?

47 In your own opinion what are the main constraints for wildlife related development opportunities in this area?

48 Please answer the following questions by assigning a value to them from 1-5 with 1 being agree and 5 disagree. **Circle only one, per row/line.**

	Agree				Disagree
a I feel that I have been well informed about the conservancy and wildlife related opportunities in the community	1	2	3	4	5
b I feel that I have not had any opportunities to benefit from wildlife related opportunities such as tourism	1	2	3	4	5
c I feel that the conservancy committee has represented my interests in the development and management of the conservancy	1	2	3	4	5
d I believe that in the future I will have income from wildlife related development such as tourism	1	2	3	4	5

49 Have you or any members of you household participated in any activities programs related to the conservancy and wildlife? (Rank with 1 very much, 2 much, 3 somewhat little, 4 very little, 5 not at all **Circle only one per row/line)**

Workshops	1	2	3	4	5
Management Committee	1	2	3	4	5
Game Guards Programme	1	2	3	4	5
Training	1	2	3	4	5
Resource Monitors Programme	1	2	3	4	5
Community conservancy meetings	1	2	3	4	5
Other which	1	2	3	4	5

50 Which members
Household Members

Events

11

51 How do you feel your participation has benefited you and your household? (Please rank in an order of importance with (Please rank in an order of importance with 1 most important benefit, 2 important benefit 3- not much on benefit, 4 very little benefit, 5 not a benefit at all **Circle one per row)**

Increased skills capacity	1	2	3	4	5
Increased income	1	2	3	4	5
Increased knowledge of conservation	1	2	3	4	5
Better understanding of the opportunities	1	2	3	4	5
Better understanding of wildlife benefit	1	2	3	4	5
Better employment opportunities	1	2	3	4	5
Better management of wildlife resources	1	2	3	4	5
Better management of livestock grazing	1	2	3	4	5
Other benefits, which	1	2	3	4	5

52 How do you think the community could be more involved in enterprise development and the management of the natural resources in this area?

53 Are there any other aspects of enterprise development and conservation that you feel are important?

THANK YOU FOR YOUR PARTICIPATION

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