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Natural Resources Management and People

B. Schuster and O.T. Thakadu

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Available from: IUCN Botswana (National Forum Secretariat)
Private Bag 00300
Gaborone
Botswana
Tel / fax: (267) 3971584
E-mail: iucnbotswana@iucn.org
http://www.iucnbot.bw

and CBNRM Support Programme
IUCN Botswana
Gaborone
Botswana
E-mail: information@cbnrm.bw
http://www.cbnrm.bw

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Foreword

CBNRM projects mushroomed in the 1990s in Botswana. According to the 2006 Status Report, 91 CBOs are officially registered. CBNRM generates an estimated income of approximately US$ 2 million per year, a hypothetical Pula 250 per community member as per the population of villages involved in CBNRN. Non-material and less tangible benefits of CBNRM are often overlooked or undervalued, nevertheless CBNRM has shown substantial results in such areas as establishing representative village institutions, village identity, status and culture, empowerment, pride and confidence. These benefits will have spin-offs for rural development beyond the immediate realm of CBNRM and need to be nurtured for further progress and development.

There are many people with experiences drawn from CBNRM, both positive and negative, and this publication presents five articles on NRM and people. The aim of the paper is to address a variety of issues related to CBNRM in Botswana, specifically interactions and linkages between people and natural resources, and how people can influence natural resources and their management; but also how natural resources influence people's lives and livelihoods. The paper presents a wide range of experiences and cases related to this topic, and facilitates information- and lesson-sharing amongst practitioners, professionals and others interested in the field.

This document is the fifteenth in the Series of the IUCN CBNRM Support Programme. The papers intend to promote CBNRM in Botswana by providing information and documenting experiences and lessons learnt during the implementation of the concept by practitioners in this field. Relevant CBNRM-related information assists in bringing together all stakeholders with an interest in what the concept stands for: social and economic empowerment of rural communities, and natural resources conservation. The Series is aimed therefore at all practitioners who work with CBNRM in Botswana, and is intended to provide information that assists in successfully applying the concept. This paper, as well as previous issues, is also available on the web site of the CBNRM Support Programme: http://www.cbnrm.bw

Jenny Tholin
CBNRM Support Programme

IUCN – The World Conservation Union

Founded in 1948, IUCN brings together States, government agencies and a diverse range of non-governmental organisations in a unique world partnership: over 900 members in all, spread across some 136 countries. As a Union, IUCN seeks to influence, encourage and assist societies throughout the world to conserve the integrity and diversity of nature and to ensure that any use of natural resources is equitable and ecologically sustainable. A central secretariat co-ordinates the IUCN Programme and serves the Union membership, representing their views on the world stage and providing them with the strategies, services, scientific knowledge and technical support they need to achieve their goals. Through its six commissions, IUCN draws together over 6 000 expert volunteers in project teams and action groups, focusing in particular on species and biodiversity conservation and the management of habitats and natural resources. IUCN has been operating in Botswana since 1984, when IUCN was invited to assist the Government in the preparation of the Botswana National Conservation Strategy. The IUCN Botswana Office was established in 1991. Since then, the IUCN Botswana Programme has been involved in drafting environmental policies, strategies and legislation; formulating management plans; identifying the environmental interests and needs of the business sector; as well as providing support and capacity building to NGOs and CBOs in the country. For more information, visit the Internet on http://www.iucnbot.bw.

IUCN/CBNRM Support Programme

The Botswana CBNRM Support Programme was initiated as a joint initiative by SNV-Netherlands Development Organisation and IUCN - The World Conservation Union in 1999. The CBNRM Support Programme has entered its second phase beginning of 2004 and is planned up to the end of December 2006. This Phase aims to "to create an enabling environment for sustainable support to community based natural resources management (CBNRM) activities, undertaken by rural communities in Botswana, while maximizing information sharing between similar initiatives in the Southern African region". The direct beneficiaries of the project are NGOs, Private Sector and Government Departments, which implementation, advisory and facilitation capacity will be strengthened to provide better services to rural communities involved in CBNRM, the indirect beneficiaries.

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Abbreviations and Acronyms

BWF	Basin-wide Forum
CBNRM	Community Based Natural Resource Management
CBO	Community Based Organisation
CBPP	Contagious Bovine Pleura Pneumonia
CEG	Community Escort Guides
CI	Conservation International
CHA	Controlled Hunting Areas
DLUPU	District Land Use Planning Unit
DWNP	Department of Wildlife and National Parks
ERP	Every River Has Its People Project
EIA	Environmental Impact Assessment
FIRM	Forum for Integrated Resource Management
GoB	Government of Botswana
HATAB	Hospitality and Tourism Association of Botswana
HOORC	Harry Oppenheimer Okavango Research Centre
IUCN	World Conservation Union
JVP	Joint Venture Partner
KCS	Kalahari Conservation Society
KD1	Kgalagadi District 1
KyT	Kgetsi ya Tsie
MEWT	Ministry of Environment, Wildlife and Tourism
MOMS	Management Oriented Monitoring System
NAPCOD	Namibia’s Programme to Combat Desertification
NGO	Non-governmental Organisations
NEPAD	New Partnership for African Development
NNF	Namibian Nature Foundation
NRM	Natural Resources Management
OCT	Okavango Community Trust
OKACOM	Permanent Okavango River Basin Commission
OLG	Okavango Liaison Group
OPT	Okavango Polers Trust
OWS	Okavango Wildnerss Safaris
RADP	Remote Area Development Programme
SADC	Southern African Development Community
SARPO	Southern Africa Regional Programme Office
SGL	Special Game Licences
SIDA	Swedish International Development Agency
STMT	Sankuyo Tshwaragano Management Trust
TGLP	Tribal Grazing Land Policy
VDC	Village Development Committee
WMA	Wildlife Management Area
WWF	World Wide Fund for Nature
UK	United Kingdom
UN	United Nations
UNDP	United Nations Development Programme
USAID	United States Agency for International Development

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The call for papers on "*NRM and People*" generated many high-quality articles, but unfortunately we could not publish them all. Nevertheless, we would like to thank all authors for their contribution.

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Contact list for authors

Jaap Arntzen: Centre for Applied Research, P. O. Box 70180, Gaborone, Botswana; e-mail: jarntzen@car.org.bw

Joseph E. Mbaiwa: University of Botswana, Harry Oppenheimer Okavango Research Centre, Private Bag 285, Maun, Botswana; e-mail: JEMbaiwa@neo.tamu.edu and JMbaiwa@yahoo.com

Masego Madzwamuse: IUCN, Regional Office for Southern Africa, P.O. Box 11536, Hatfield, Pretoria 0028, South Africa; e-mail: masego.madzwamuse@iucn.org

Lefatshe I. Magole: University of Botswana, Harry Oppenheimer Okavango Research Centre, Private Bag 285, Maun, Botswana; e-mail: magolei@mopipi.ub.bw

Montshiwa M. Montshiwa: Kalahari Conservation Society, P. O. Box 859, Gaborone, Botswana; email: sirmonty@yahoo.co.uk

Brigitte Schuster: IUCN Botswana, Private Bag 00300, Gaborone, Botswana; e-mail: brigitte,schuster@iucn.org

Olekae T. Thakadu: University of Botswana, Harry Oppenheimer Okavango Research Centre, Private Bag 285, Maun, Botswana; e-mail: othakadu@hotmail.com

Jenny Tholin: IUCN South Africa, P. O. Box 11536 Hatfield, Pretoria 0028, South Africa; e-mail: jtholin@gmail.com

Dr. Michael Taylor: University of Botswana, Basarwa Research Programme, Gaborone, Botswana; email: m.taylor@ifad.org

Introduction

By O.T. Thakadu and B. Schuster

Natural resources continue to play a significant role as an integral part of livelihoods in most African communities. Communities interact with their environments in complex and diverse ways. Rural communities depend on ecosystem goods and services for social, cultural, spiritual and economic values. These serve as buffers to the communities against poverty, unemployment, health risk and seasonal famine. While colonialism upset the interactions of humans with natural resources through alienation, the advent of co-management initiatives with local communities in Africa in the form of CBNRM has partly contributed to the restoration of traditional relationships. The CBNRM approach, which combines conservation objectives with the generation of economic benefits for rural communities, has emerged from the recognition that top-down approaches in the conservation of natural resources were not adequate. Local communities were viewed as best placed to be the custodians of their natural resources in their area. In Botswana, the CBNRM initiative started in 1989 with a pilot project in the Chobe Enclave communities. The programme has to date spread to all Districts in the country, involving more than 120 villages. While in conception the approach was more wildlife based, it now covers other resources and activities such as Devil's Claw, thatching grass, Mopane worms, other veld products, fish and cultural tourism, and initiatives are advanced to extend it to rangelands. It has been credited with improving livelihoods, and providing rural economic development and sustainable natural resources management.

This publication contains chapters addressing interactions and relationships between people and their natural environment. It demonstrates the contribution of natural resources to the livelihoods of people particularly in rural areas, and how people impact on natural resources and influence their management. The articles present experiences and cases related to people-natural resource relations in CBNRM project areas.

The first chapter provides insights and progress on broader CBNRM implementation at a national level. It highlights observations, constraints, challenges and key suggestions vital towards fully exploiting the development and conservation potential of CBNRM in Botswana. The article compares and contrasts local approaches to other similar regional initiatives with a view to informing and improving Botswana CBNRM practice and implementation. It also addresses issues of the CBNRM policy environment in Botswana, resource rights, and resource management and development, and discusses benefit sharing.

The second chapter addresses local community attitudes towards wildlife conservation and factors contributing to both positive and negative attitudes and perceptions. The study demonstrates the impact of CBNRM implementation in Ngamiland on local communities' views with significant positive attitudinal change demonstrated after the introduction of CBNRM. However, the study notes that the degree of attitude change within each CBNRM project village is directly proportional to the success, effectiveness and performance of the project at local level.

The third chapter examines the impact of hunting legislation in the context of CBNRM implementation within the Khwai and Mababe communities in Ngamiland. It argues that, despite the implementation of CBNRM and the concomitant move from 'subsistence hunting culture' through special game licences (SGL), the effective community management of wildlife resources has been undermined. It also points out that the implementation of CBNRM projects within the two communities has reduced the game meat yield previously available to individual community members through use of the SGL. This scenario has not benefited conservation as individuals resorted to illegal means of attaining game meat to make up for the deficit. The chapter provides insight on how a well-thought project can fail if communities' perspectives and views are ignored at the planning stage.

The fourth chapter brings into perspective a unique regional initiative, the Every River has its People Project, aimed at promoting sustainable natural resources management, particularly water-related resources, in the Okavango River basin. The article outlines the project's historical background and discusses vital elements of the approach followed during project implementation, as well as method-

ologies employed. The article presents key lessons learned from implementation, and recommendations are made on the basis of the shortfalls to enhance project effectiveness. The article represents a unique approach from conventional CBNRM in that it deals entirely with shared river basin resources from a transboundary perspective.

The last chapter highlights the specific relationship between the Basarwa, their land and natural resources, and sets out to explain their traditional practices of adaptive resource management based on access to large territories of land. The article explores how several national policies and development Programmes have affected the traditional land tenure system and the specific natural resource management practices of Basarwa communities in Botswana. The chapter also outlines the challenges that arise for natural resources management and makes recommendations on how the CBNRM Programme should be adapted to address these challenges.

The chapters presented in this publication advance discussions on the way forward towards addressing interactions and relationships between people and their natural environment, and how the link between the two could be harnessed for mutual benefit. The publication demonstrates the wide spectrum of issues that should be addressed at local level, and at planning, implementation and policy levels for the betterment of the CBNRM Programme, mainly in Botswana. What becomes clear is that, in order to effectively address people-natural resource interactions, a coordinated and holistic approach to the intertwined environmental, social, cultural, economic, legal and political issues must be adopted. It has now become apparent to most governments and natural resource management institutions that overlooking the social realities determining the interactions between people and natural resources is a sure recipe for failure in any natural resource conservation attempt.

Community Based Natural Resources Management Projects: Balancing Conservation and Development?

By Jaap Arntzen

Abstract
This paper discusses the progress made with community based natural resources management projects in Botswana since 1990. It outlines the CBNRM approach and procedures and assesses three major shortcomings in the current policy environment of CBNRM in Botswana. It then reviews the question whether CBNRM contributes to the conservation of communal natural resources, and to rural development and livelihood improvement. It considers some of the potential conflicts between resource conservation and CBNRM-based development. The development and conservation potential is yet to be fully exploited, but positive results have been achieved and more time is needed to strengthen the capacity and performance of CBOs. Partnerships with the private sector could enhance the operations of CBNRM. Resource and performance monitoring need to be strengthened.

Introduction
Community based natural resources management (CBNRM) tends to be viewed and judged from either the conservation or development perspective. In principle, the approach is an African solution – a modification and modernisation of traditional common property regimes that existed in communal areas, leading to the sustainable development of rural areas and conservation of its natural resources after state management of communal natural resources proved a failure. CBNRM could become an important, uniquely African, component of the New Partnership for African Development (NEPAD).

In reality, CBNRM projects proved difficult to implement and sustain, and many of the early CBNRM projects did not meet prior expectations regarding conservation and development. Expectations may have differed among stakeholders. Bruce and Mearns (2002) observe that CBNRM is viewed as *'efforts by outsiders to transform property rights in natural resources, used in common [that] have all too often been motivated by a concern for sustainability that is not shared, or is defined very differently, by the resource users themselves'*. Sithole (2003) sums up the two perspectives with respect to rangelands: *'rangelands are about people and their cows more than they are about healthy cows eating green grass'*.

Balancing conservation and development may be hard to achieve, as low incomes and poverty encourage the local population to prioritise material benefits while conservationists view sustainable development in essence as an innovative approach towards conserving communal natural resources.

Below, we examine some of the results of Botswana's CBNRM projects, with respect to conservation and development, using experiences from other southern African countries too. The results are instrumental in attempts to answer the critical question about the potential of CBNRM as a conservation and rural development approach.

Community Based Natural Resources Management
In the popular domain, CBNRM projects in Botswana are somewhat mistakenly identified with a few wildlife based projects that generate over a million Pula in revenues. This 'bag' of money is a big 'carrot' for small communities, usually with less than 500 inhabitants. It certainly poses the risk of too high expectations among other communities that are interested in CBNRM projects. High revenue CBNRM projects do exist but only constitute a small portion of the total number of projects. The majority of CBNRM projects are wildlife-based, but photo and cultural tourism as well as veld products are becoming more important. Most do not generate huge income and employment opportunities, but do offer opportunities for some income and employment creation that is controlled by the communities themselves.

The failure of government to effectively manage communal area resources, the lack of local

resource benefits, and the growing costs to local communities of living with wildlife resources have been instrumental in the promotion of CBNRM in Botswana. The CBNRM approach also fits well into the government's wish to decentralise development and to make government a facilitator rather than implementer of development. It is premised on the assumption that communal natural resources can only be conserved with the assistance of the local population, who should therefore benefit from the revenues that such resources generate. The resulting positive attitude towards natural resources would translate into community-based resources management, and would restore the common-property resource management in communal areas that previously existed.

Panayottou (1992) makes a useful distinction of three interrelated types of resource rights. Firstly, resource *ownership* rights define who actually owns the resource. In Botswana, the government owns resources such as wildlife, water, veld products and state land, and the Land Boards own communal land. Secondly, resource *user* rights determine who may use resources and who may not. User rights are granted to specific users by institutions such as the Land Boards (land), the Water Apportionment Board (water) and government departments (the Department of Wildlife and National Parks, the Department of Forestry and Rangeland Resources, and the Department of Mines) (land-related resource use). Thirdly, the resource *development* rights determine who has the right to develop natural resources. Development rights are often granted in combination with user rights, and are subject to compliance with existing land use and development plans. Effective natural resource management requires that *ownership*, *user* and *development* rights are clearly defined, secured and allocated in a transparent manner. Otherwise, resource conflicts may emerge, and resources may remain under-developed or over-utilised to maximise short-term gains. The transferability of rights increases the value of such rights and the willingness to invest in resources and development, as the returns on investments can be secured via transfer of rights. In Botswana, government typically retains resource ownership but transfers user and development rights to companies, individuals and communities.

CBNRM in Botswana involves the granting of *exclusive but conditional* user and development rights to communities for a number of resources. As Botswana's CBNRM policy is yet to be finalised, the resource rights and responsibilities of communities are inadequately specified in policies and legislation. The Land Board may grant a community exclusive fifteen-year wildlife use and tourism concession rights in a specified area. Although exclusive community rights over veld products, water points and land resources are not explicitly provided for, communities are not prevented from getting such rights (Arntzen and Tshosa, 2004). Jones (2003) has advocated the granting of community land rights to encourage comprehensive, holistic and simpler local natural resources management. Tanzania offers an example of community land rights that are administered by local institutions (Alden-Wily, 2003). Namibia offers an example where community rights cover more resources, including local water resources and reticula-tion systems. The Water Point Committees in Namibia maintain and manage local water points on behalf of communities.

CBNRM rights are currently granted for controlled hunting areas, i.e. a wildlife-based administrative spatial unit. Local adults (18 years and over) who have been resident in the area for at least five years are automatically members of the community based organisation (CBO) that runs the CBNRM project. The rights and responsibilities of the CBO (usually a Trust) are specified in the constitution, but the rights and responsibilities of *individuals* are not. The Botswana approach differs fundamentally from, for example, the Namibian conservancy approach, where boundaries have to be negotiated and local people have to apply for CBO-membership, and can be barred for non-compliance.

The Policy Environment for CBNRM Projects in Botswana

The CBNRM approach has evolved from a growing set of projects, mostly wildlife based. The projects developed with support from the USAID-funded Natural Resource Management Programme and subsequently with support from DWNP, particularly the extension department.

There are three major caveats in the current CBNRM environment. Firstly, the links with rural development are weak and under-developed. It is regrettable that the 1997 Community Based Rural Development Strategy and the 2002 Revised Rural Development Strategy have had few linkages with CBNRM

projects to date. This has left the CBNRM projects primarily in the conservation domain of DWNP, while local communities view CBNRM in the first instance as a local development approach. Secondly, some CBNRM resources are used without explicit and exclusive community user rights, leaving room for resource conflicts and conflicts between communities and other users. For example, CBOs such as Kgetsi ya Tsie (KyT) depend on veld products, over which they do not have secure and exclusive rights. Other CBNRM projects and individuals could interfere with these resources, threatening the viability of KyT. Thirdly, there is no holistic approach and policy towards CBNRM that could secure community rights and lead to more efficient and effective community management. The different procedures that currently exist to obtain resource user rights are complex for communities and burden them unnecessarily, or make them dependent on external advice and assistance.

Working with groups and communities is a time consuming process, as community constraints have to be identified and resolved and communities have to engage in and agree upon resource and development planning. Reaching consensus and resolving conflicts are major challenges that the CBNRM approach has yet to address. It is therefore vital for any CBNRM evaluation to look at *the trends in* CBNRM performance rather than consider its performance at one particular time. At the same time, it is necessary to classify CBOs based on key performance criteria, such as:

1. The length of operation: older ones tend to perform better in Botswana, Namibia and Zimbabwe (Mvimi, 2000; Arntzen *et al,* 2003);

2. The amount and quality of natural resources under the CBO's control: CBOs with rich resource endowments have it much easier than marginally endowed ones (Barnes 1998; Arntzen *et al*, 2003);

3. The presence of a joint venture partner (JVP). The tourism and hunting markets require a thorough understanding of marketing and intensive sale strategies. Most communities lack the required market understanding and the means to mobilise clients from the market. Joint ventures bring in such skills and knowledge from the private sector; and

4. The composition and location of the local population. Ethnicity and multiple settlements can easily cause problems, make it more difficult to reach consensus and make implementation more difficult.

External assistance is currently fragmented, and shows gaps in terms of business skills training and advice and resolving community conflicts. The Namibian FIRM (Forum for Integrated Resource Management) approach could be used to provide CBOs with the required holistic, efficient and integrated support. FIRM is a forum in which the community and all external support organisations (government, NGOs, donors and private sector) are represented (NAPCOD, 2002; Desert Research Foundation, 2003). FIRM is driven by the needs of the local community and ensures that support is comprehensive and efficient.

Does CBNRM Lead to Resource Conservation?

This question must be answered by considering the pre-CBNRM resource situation as well as reviewing the CBNRM achievements to-date. Let us first examine the pre-CBNRM situation.

Most communal vegetation resources had fallen prey to open access, where everybody could use the resources and use was not controlled. This applied to most veld products that were not regulated under the 1974 Agricultural Resources Conservation Act, and for communal rangelands in the proximity of villages that were not controlled by private borehole owners. The use of wildlife resources was strictly controlled, but enforcement was problematic and poaching fairly common. Moreover, the co-existence of special game licenses (based on the development needs of the most vulnerable groups) and single game licenses (based on species availability) restricted the conservation potential of the license system. Thus communal natural resources were inadequately protected, and their conservation was at risk.

The CBNRM approach has improved the potential and basis for communal resource conservation, but has not yet led to sustainable resource management and use. It is however difficult to substantiate these statements with figures because base-line assessments are not routinely done for CBNRM projects, and no records are kept of the resource monitoring efforts of community game scouts.

The recent Review of CBNRM projects (Arntzen *et al,* 2003), concluded that these projects have had several *positive communal natural resource impacts*, including:

1. The local population starts to appreciate local natural resources. Resource conservation is incorporated into the constitution of all CBOs;

2. Reported lower incidence of poaching in CBO areas, although poaching still occurs on a small scale;

3. CBOs have appointed community game scouts, who monitor the activities of the joint ventures partners; and

4. Containment of bush encroachment and the maintenance of an open savanna landscape due to multiple land uses. The role of CBOs can be likened to that of European farmers, who receive income for their contributions to maintaining a diverse and threatened landscape.

CBOs have not yet, however, re-established a common property regime with holistic resource management planning. For example, CBOs do not:

1. Have an environmental management plan for 'their' area. This can be attributed to the limited resource rights that have been granted to CBOs;

2. Rarely actively participate in resource management. For example, very few communities have invested in restocking with wildlife or the establishment of water points. On the other hand, in the Kgalagadi District, some CBOs have had the wisdom to postpone hunting of wildlife to allow resources to recover. This shows pro-active resource management; and

3. Limited resource monitoring through the community game scouts, but no records are kept of the monitoring results.

CBNRM schemes in other countries also fall short of establishing common property regimes due to the limited community responsibilities and management choices and decisions. Alden-Wily (2002) classifies most CBNRM approaches in southern and eastern Africa as *benefit sharing schemes* rather than *management sharing schemes*. The latter require greater devolution of resource rights, but are imperative for the pursuit of sustainable resource management and use.

Botswana's CBOs may thus have good reasons not to pursue common property management at this stage. For instance, the conditions of local natural resources, particularly wildlife resources, are determined by many factors that are beyond the communities' control. Such factors include fences and settlement development. This makes the local returns of CBO investments in resources uncertain and therefore discourages such investments. The situation is aggravated by the short duration of the resource leases (fifteen years for communities; five years for joint venture partners). Furthermore, there is no direct link between the community quota and community resource management. The wildlife quotas are currently determined by the DWNP. While communities are consulted, quotas are reported to decrease even if the communities argue that resources have increased. It is unclear how the final quotas are decided upon. The inability of CBOs to influence quotas discourages CBO resource management, as there is no link between the level of resource management and the size of user rights.

To make it worthwhile for communities to invest in resource management and conservation, it is necessary to involve communities directly in qouta setting (and to offer rewards for good management!) and in decisions regarding developments outside the community that will influence their resources, to train and educate CBOs in resource monitoring and record keeping, and to consider proactive resource management such as water source development and restocking (as happens in Namibia). This is unlikely to be achieved without a good CBNRM policy. It is unfortunate that the process of drafting a CBNRM policy started in 1996 yet has not been concluded.

Does CBNRM Accelerate Local Development?

Local development can be directly and indirectly promoted in several ways: 1. employment and income creation; 2. establishment of community facilities; 3. empowerment of local communities; and 4. other mostly non-material benefits.

Government has established an impressive network of public services and facilities in the fields of health care, education, water provision and social welfare. As a result, the need

for additional facilities are generally limited when compared to neighbouring countries. Moreover, people now consider the provision of services and facilities to be primarily a government task that CBNRM revenues should not be earmarked for. A few CBOs such as Sankuyo Tshwaragano Management Trust (STMT) have invested in services such as a community hall with TV.

Community empowerment and other non-material benefits probably constitute the most significant contribution to local development. Communities feel that they have gained (or re-gained) control over their natural resources. In the case of wildlife, CBNRM is seen as a rectification of the community control lost under the unified hunting license system. As highlighted above, this is only partly true and user rights are conditional. Other non-material benefits that emerged from the Review (Arntzen *et al*, 2003) include:

.1 Higher social status of CBNRM members and Trustees. For example, KyT members were often brought into VDCs and other village institutions due to their CBNRM experiences;

2. Establishment of village institutions (mostly Trusts) that can be used for other development issues too. For example, VDCs work closely with Trusts, and the Community Based Rural development Strategy could use the Trusts for the implementation of its strategy;

3. Strengthening of village identity and culture;

4. Growing self-confidence and pride. For example, Khwai Development Trust opted for auctioning off its resource rights to keep greater community control, and insisted on the benefits of this method after encountering serious management problems in the Trust. This reflects pride and confidence, while admitting the errors that the CBO had made. Nqwaa Khobee Xeja Trust (KD1) is another example of local confidence and pride about the CBNRM project. While the local population argued that they were better off with the special game licenses in the pre-CBNRM era, they did no want to revert back to this, as those were 'hand-outs' as opposed to 'ownership' of the CBNRM project;

5. Technology and product development. For example, KyT developed technologies to produce high quality morula oil and soap, and constantly reviews its range of products;

6. Exposure to private sector thinking and skills through joint ventures. Many joint ventures experience a troubled relationship between the CBO and the JVP, but if lessons are learned from the current troubles, partnerships may prove valuable for CBOs in the longer term; and

7. Retaining productive youth in CBO villages. Urban migration is high among the youth. CBNRM offers employment and income opportunities for educated and productive persons, and may thus contribute to a decrease in migration of the youth. This would lead to a more balanced age composition in villages.

CBNRM may contribute towards a more homogenous local society through the process of developing and implementing consensus management plans. In reality, CBNRM projects also cause conflicts within communities as different groups strive to control the CBO.

The material benefits of CBNRM projects are modest in absolute terms, but important relative to the high level of unemployment and poverty in rural areas. Given the depressed state of rural areas and the failure of past rural development efforts, any project that creates sustainable rural employment and income must be considered of great significance. CBO employees and Trust Board members are the main beneficiaries. For others, CBNRM projects generate no or very little material livelihood benefits. In some cases, livelihood may be adversely affected. For example, in KD1 most trust revenues are spent by the Trust and a growing part of the community quota is allocated to the JVP to ensure its viability. By implication, less (and probably less than under the special game license system) is left for local livelihoods. This constitutes a trade-off between JVP quota and Trust income on the one hand and subsistence needs of the local population on the other hand.

The CBNRM review showed that the average revenue from a CBO is around P1,050 per person per annum (Arntzen *et al*, 2003). However, there is a wide range in per capita income, from as low as P24.20 in KD 1 (2002) to P3,694.80 in STMT. Some CBOs have made small cash payment (P500) to each household. As small and seemingly insignificant as these

seem, such cash payments are highly appreciated by the local population. Most CBOs distribute game meat among their members, and some - such as KyT - offer access to processing technologies and markets to individual members, strengthening their livelihoods. Some offer scholarships for local youth, assist with funerals, and support the local soccer teams.

The level of revenues is primarily determined by the resource conditions and the fact whether communities have joint venture partners (for wildlife) or not. Unfortunately, there is currently hardly any link between the performance of the CBO and its revenues, as most CBOs are still strongly dependent on income from wildlife quotas. As long as CBOs do not manage to diversify their revenue base, they have little incentive to perform better. The expenditures of Trusts are relatively high (for some, over 80%) and consume most of the revenues. Rising trust expenditures affect the development of new projects, leaving no room for livelihood improvements outside the group of direct beneficiaries of Trusts, and therefore expenditure levels need to be controlled. According to the CBNRM review, Trusts experience difficulties in starting and operating productive activities. This raises the important question: to what extent are CBOs suitable and capable institutions to operate enterprises? Most CBOs appear unsuitable, implying that CBOs have to develop partnerships for economic activities. Sometimes revenue surpluses are banked as future reserves. This is similar to the Government of Botswana's foreign reserve strategy.

Control over Trust expenditures, and a revenue distribution plan (including investment component), are key requirements to strengthen the development and livelihood contributions of CBNRM. An increase in direct payments to households is important for 'ownership' of the project and for changing people's resource attitude. Similarly, reservation of part of the revenues for resource management is important to stimulate management and conservation of natural resources. For example, a revenue distribution formula as used in Zimbabwe's CAMPFIRE projects could be applied by CBOs in Botswana. Where the viability of productive local projects is low or limited, CBOs should consider revenue banking or external investment. This requires full incorporation of CBNRM projects into the arena of rural development to explore and exploit opportunities for local economic diversification and partnerships with viable entrepreneurial groupings (Community-Private sector Partnerships).

Some CBOS have gained assets through the CBNRM projects. In Ngamiland, several tourist lodges were allocated to CBOs. This represents a significant development opportunity, but the potential needs to be developed carefully. Until recently, such lodges remained un-used because CBOs were not prepared for the hand-over and did not possess the skills for running them.

CBNRM projects have contributed towards local development, mostly through the operation and skill development of the trusts (employment, income, skills), and generation of non-material components such as empowerment, establishment of local structures, reduced youth out-migration and community-private sector partnerships that can benefit other development aspects too. The material benefits are mostly restricted to the Trust employees and Board members; the benefits to local livelihoods remain (too) small. CBOs need to forge partnerships with individuals and companies that can initiate and run businesses efficiently.

Can CBNRM Balance Resource Conservation and Development?

There are several conflicts between conservation and development. Given the poverty and unemployment levels and the need to demonstrate the viability of CBNRM, short-term benefits need to be created and benefits need to increase in time. This may conflict with the resource situation that requires a decrease in quota. Any decrease in wildlife quota will decrease the CBO-revenues, and affect their survival chances, until CBOs have diversified their revenue base.

Poverty and unemployment give priority to expenditures on Trust operations and community benefits at the expense of natural resource investments that yield longer term benefits. It is therefore necessary to provide for reservation of part of the funds for this purpose.

The current leases are short - particularly for the private sector (five years) - and do not stimulate resource investment. Therefore, private operators have an incentive to maximise short-term gain at the expense of long-term resource and community investments.

It is possible to combine resource conservation and development through CBNRM, but the current set-up is inadequate to combine and balance the two. Resource leases need to be extended, requirements for resource investment need to be introduced, and the determination of community wildlife quotas needs to be changed to recognise the role of the community and the impact of quota changes on CBNRM viability and local livelihoods.

Concluding Remarks
This paper has shown that the development and conservation potential of CBNRM projects is yet to be fully exploited. It further concludes that CBNRM has generated additional income at the community level and some employment, and that CBNRM has generally had positive environmental impacts. Finally, it argues that community based approaches require a long-term support, and are unlikely to yield quick results. Combining these conclusions suggests that the CBNRM approach deserves more time and resources, including an enabling policy environment. The CBNRM approach offers opportunities for decentra-lisation and a re-think of the role of government as facilitator.

Having said this, there is an urgent need for CBNRM projects to strengthen their contributions towards rural development and livelihoods as well as the conservation of communal natural resources. The paper has identified the key delivery areas above. This will require more from communities and their supporters. It further requires communities to enter into smart partnership with, for example, the private sector or individuals.

Trends in resource management and development are the key to performance measurement. Communities, with the support of government and NGOs, need to establish monitoring indicators and systems to ensure that CBNRM performance will be enhanced. There is both the scope and need for expanding the resource base of CBNRM. Other countries have already generated experience with veld products, water points, fisheries and forestry resources. Community based rangeland management may be more complicated due to the vested interests in livestock; however, it is not impossible and worth pilot efforts such as those of the Indigenous Vegetation Project of the Ministry of Agriculture and UNDP.

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Local Community Attitudes towards Wildlife Conservation and Community Based Natural Resources Management in Ngamiland District, Botswana

By Joseph E. Mbaiwa

Abstract
The objective of this paper is to investigate the perceptions and attitudes of rural communities in Ngamiland District towards wildlife conservation and the Community Based Natural Resources Management (CBNRM) Programme. Issues addressed include causes of negative attitudes towards wildlife conservation, factors leading to a change of attitudes towards wildlife conservation, and the role of CBNRM in promoting rural livelihoods and wildlife conservation. Using data from several studies conducted by the author in Ngamiland District since 1998, findings indicate that local people in the area developed negative attitudes towards wildlife conservation when they were removed from areas that became protected, such as the Moremi Game Reserve. The loss of land and the lack of access and rights to use wildlife resources in the Reserve increased negative attitudes towards wildlife conservation. However, the introduction of CBNRM, where local people are now able to derive economic benefits (e.g. employment, income etc.) from wildlife, have resulted in a change and the development of positive attitudes of local communities towards wildlife conservation. Local people also view CBNRM as a positive programme that allows them to gain access and benefits from wildlife resources around them. This therefore indicates that CBNRM has potential for promoting wildlife conservation and the improvement of livelihoods in Ngamiland District, a potential that can contribute to sustainable development.

Introduction
Participatory and community based approaches are in the present era heralded as the panacea for natural resource management worldwide (Twyman, 2000). In Botswana, Community Based Natural Resource Management (CBNRM) was adopted almost a decade ago as an approach that aimed to achieve rural economic development and the sustainable management of natural resources (Mbaiwa, 2004a). As a result, CBNRM in Botswana was introduced partly to address the following: the threat of species extinction due to over utilisation of wildlife resources through poaching; the inability of the central government to protect its declining wildlife resources; land use conflicts between rural communities living in wildlife areas and the Department of Wildlife and National Parks (DWNP); and the need to link wildlife conservation and rural economic development (Mbaiwa, 1999). The CBNRM approach notes that rural communities living in wildlife areas should be given the responsibility to manage and economically benefit from wildlife resources in their local environment.

The CBNRM approach assumes that, once rural communities participate in natural resource utilisation and derive economic benefits, they will cultivate a spirit of ownership and will ultimately use the natural resources found around them sustainably (Mbaiwa, 1999). The assumption is that, when local communities economically benefit from wildlife resources and are involved in resource management, they are likely to develop positive attitudes towards wildlife conservation. The CBNRM programme is based on the premise that people living in natural resource areas have a greater interest in the sustainable use of the natural resources around them than centralised or distant government or private management institutions (Tsing *et al*, 1999; Twyman, 2000). The programme credits the local people with having a greater understanding of, as well as vested interest in, their local environment, hence they are seen as more able to effectively manage natural resources particularly through local and traditional practices and customs (Leach *et al*, 1999; Tsing *et al*, 1999; Twyman, 2000). The CBNRM programme in Botswana was meant to promote community participation in natural resources (especially wildlife resources management).

The Sankuyo Tshwaragano Management Trust (STMT), established in 1995, was the first

CBNRM project in Ngamiland District and the second in Botswana (after the Chobe Enclave Community Trust). Data collected from the CBNRM Status Report (2003) indicate that about 17 Community Based Organisations (Trusts) involving 31 villages and 26,415 people have been established in the District. However, some of the CBNRM projects are not directly focusing on the use of wild animals but rather use other natural resources, such as basket making (e.g. the women's basket organisation).

While the CBNRM programme has operated in Ngamiland District for almost 10 years, the available literature and studies have not adequately explored the progress and achievements in the development of positive attitudes of local people towards wildlife conservation. The objective of this paper therefore is to assess the progress and achievements of the CBNRM programme in promoting the development of positive attitudes towards wildlife conservation in Ngamiland District. This paper relies on data that the author collected on the development of the CBNRM programme in Ngamiland District between 1998 and 2004. It also uses available secondary data sources on CBNRM in Ngamiland District and Botswana as a whole.

Causes of Negative Attitudes Towards Wildlife Conservation

The attitudes and perceptions of people in the Ngamiland District were largely negative towards wildlife conservation before the establishment of the CBNRM programme in the District in the late 1990s. This problem was mostly caused by the centralisation of wildlife conservation, which included the establishment of protected areas (Mbaiwa, 2002a). In 1965 the Moremi Game Reserve was established in the hunting grounds of people who were relocated to the fringes of the Reserve. For example, the people of Khwai were relocated from the Reserve to their present site at Khwai Village (Bolaane, 2000; Taylor, 2001; Mbaiwa, 2002a). The establishment of Moremi Game Reserve and the subsequent extension of its borders in 1989 did not only affect the people of Khwai but also of other communities located around the Reserve, such as those of Mababe and Sankuyo villages. These rural communities felt that the central government had dispossessed them of a culture of local ownership or guardianship of natural resources. Botswana's model of protected area management is based on the assumption that settlements and parks do not mix, and aims at promoting the integrity of protected areas. The lack of access - particularly for veld products collection - into Moremi Game Reserve by communities living in the fringes of the Reserve contributes to the development of negative attitudes towards wildlife conservation. These communities believe that DWNP has usurped them of the resources that previously belonged to them. As a result, some view DWNP as a government policy body meant to deny them the use of resources they previously controlled (Mbaiwa, 1999).

The negative attitudes of rural communities that live around the Moremi Game Reserve have also been exacerbated by the predation of their livestock and crop damage by wild animals. In a recent survey at Seronga and Gugigwa, households commonly remarked, *we plough but elephants harvest*. While livestock predation and crop damage are a major source of land use conflict in Ngamiland, rural communities are not always happy with government compensation which is seen as either very small or coming very late (Mbaiwa & Rantsudu, 2003). Confronted with problems of land use conflicts and negative attitudes towards wildlife conservation by rural communities, the implementation of CBNRM in Ngamiland District is therefore perceived as one of the ways in which these problems could be minimised. The CBNRM programme recognises rural communities as joint partners in natural resources management, particularly land and wildlife resources (DWNP, 1999).

Factors Leading to the Development of Positive Attitudes

There are several socio-economic and political factors enshrined in CBNRM as a concept that have the potential to contribute to the development of positive attitudes by local people towards wildlife conservation. Some of these factors include a sense of ownership over natural resources such as wildlife, socio-economic benefits, and community participation in the decision-making process regarding the management of resources in their local environment (DWNP, 1999; Mbaiwa, 1999). In Ngamiland District, the CBNRM programme has generated significant socio-economic benefits to rural communities. In terms of financial benefits, CBNRM projects generate huge sums of money to participating villages on an annual basis, and this revenue mostly comes from joint venture partnerships with tour operators (Table 1).

As shown in Table 1, there is an annual increase in revenue generated by each CBNRM project ever since the programme was established in the District. This is also generally the case with revenue generated by all CBNRM projects in Botswana. The National CBNRM Forum (2003) notes that revenue generated by CBNRM in Botswana was P24,000 in 1993, increasing to P1.41 million in 1997, P2.27 million in 1999, P6.42 million in 2001 and P8.45 million in 2002. This shows that CBNRM has managed to generate income for rural communities that previously did not have such direct financial benefits from natural resources in their local environment. The direct financial benefits from CBNRM contribute to the development of positive attitudes towards wildlife conservation by local people in Ngamiland District.

Employment opportunities in CBNRM projects, particularly from Trusts and safari operators that have joint venture partnerships with local communities in Ngamiland District, also helped to change the view of wildlife conservation by local people. Even though there are conflicting figures in relation to employment statistics generated by CBNRM projects in Ngamiland District, there is no doubt that the programme has created new employment opportunities in participating villages. Kgathi *et al* (2002) state that CBNRM has increased employment from 3 to 150 people per project in Ngamiland District, while Arntzen *et al* (2003) note that all CBNRM projects in Botswana employ between 1,000 and 1,500 people. Arntzen *et al*'s figures appear to be an underestimate. However, for illustration purposes a few examples of employment statistics are given here: the Okavango Polers Trust (OPT) in Seronga provides employment to 99 people, excluding the 75 polers who happen to be owners of the Trust, providing a daily income of P110 and other benefits (Mmopelwa, 2004). When considering both polers and workers, a total of 174 people are employed by the OPT. The Okavango Community Trust (OCT), which consists of the five villages of Seronga, Beetsha, Eretsha, Gunotsoga and Gudigwa, employs 39 people, while their joint venture partner, Okavango Wilderness Safaris, employs 93 people from these five villages. In total OWS has influenced about 132 jobs from the five villages (Mbaiwa & Rantusudu, 2003). The Sankuyo Trust employs 48 people, while HCH Safaris - their joint venture partner - employs 56 people (Mangadi, 2004). In addition, Santawani Lodge and Kazikini Camp owned by the people of Sankuyo respectively employ 16 and 15 people (Mbaiwa, 2004c). These examples show that CBNRM is an important employment sector in rural areas and has the potential to reduce rural poverty and promote the development of positive attitudes towards wildlife conservation in Ngamiland District.

Table 1. Revenue generated by CBOs in the Okavango Delta (in Botswana Pula).

Name of Trust	Year	Land Rental	Quota	Others*	Total
Sankoyo Tshwaragano Management Trust	1997	285,000		0	285,000
	1998	345,000		0	345,000
	1999	140,000	202,850	120,000	462,850
	2000	154,000	223,135	148,940	526,075
	2001	169,400	245,450	180,610	595,460
	2002	23,850	872,550	No data	1,255,000
	2003	466,509	965,772	65,000	1,497,281
Okavango Community Trust	1997	264,000	204,050	0	468,050
	1998	290,400	335,250	0	625,650
	1999	319,440	332,900	0	652,340
	2000	350,240	336,000	0	686,240
	2001	600,000	400,000	500,000	1,500,000
	2002	600,000	400,000	500,000	1,500,000
	2003	600,000	400,000	500,000	1,500,000
	2004	600,000	400,000	500,000	1,500,000
Cgaegae Tlhabololo Trust	1998	40,750		30,000	70,750
	1999	70,000		35,000	105,000
	2000	25,000	290,167	27,095	342,262
	2001	0	265,000	0	265,000
	2002	0	150,000	30,000	180,000
	2003	0	51,000	0	51,000
Okavango Kopano Mokoro Community Trust	1999	110,000	320,000	250,000	680,000
	2000	200,000	700,000	200,000	1,100,00
	2001	220,000	735,000	200,000	1,155,000
	2002	220,000	780,000	200,000	1,200,000
	2003	397,309	642,000	260,691	1,300,000
Mababe Zokotsama Development Trust	2000	60,000	550,000	65,000	675,000
	2001	69,000	632,000	63,250	764,250
Khwai Development Trust	2000	0	1,200,000	0	1,200,000
	2001	0	600,000	0	600,000
	2002	0	1,211,533	0	1,211,533

*other sources of income - game meat by value, craft production and marketing of veld products.
Source: Mbaiwa (2004a,c)

The CBNRM programme in Ngamiland has also shown that rural communities are able to use funds generated from natural resources - particularly wildlife - for community development projects. Almost all the CBNRM projects in Ngamiland operate grocery and bottle stores in their villages and also have vehicles for transportation. This indicates that CBNRM has made services available in remote areas. In addition, revenue generated from CBNRM has become a source of assistance for most households in times of deaths and funerals. All Trusts in Ngamiland provide financial and transport assistance to their communities, when there is a funeral in a household. For example, the Sankuyo Trust contributes P3,000 for every adult and P1,000 for every child to cover funeral costs. The payment for

funeral expenses in households differs from one village to another. Sankuyo provides the largest assistance so far in Ngamiland District. The assistance with funeral costs shows that, while local people do not have funeral insurance policies like the middle and upper classes who live in urban areas, their involvement in CBNRM creates a substitute to meet the demands of their villages.

In addition, some of the villages such as Sankuyo distribute income from CBNRM annually to all the households in the village. Between 1996 and 2001, each household at Sankuyo was paid P200; this sum increased to P250 in 2002, P300 in 2003 and P500 in 2004 (Mbaiwa, 2004c). The distribution of income to the various households at Sankuyo is an important aspect in improving income at household level and it directly contributes to the development of positive attitudes towards wildlife conservation in the village.

The CBNRM programme has also become an important tool in promoting rural recreation activities and other social programmes in Ngamiland. Recreation facilities such as soccer grounds and community halls with recreation equipment (particularly television sets) have been established. The introduction of television sets in remote villages of Ngamiland is an important aspect of rural development, as it keeps people informed of the latest developments and opportunities in the country. In addition, some of the villages have used funds from CBNRM to meet the needs of the poor and needy in the village. For example, Sankuyo has constructed huts for destitutes and orphans in the village and also provides food handouts to them. Sankuyo has also contributed funds to national appeals, such as the Orphan and HIV/AIDS Funds. It donated P25,000 to the Masiela (Orphan) Fund and another P25,000 to the HIV/AIDS Fund in 2004. The Sankuyo Trust currently sponsors nine students at a commercial school in Maun. These students have their tuition, book fees, living expenses and other necessary expenses paid for by the Trust (Mbaiwa, 2004c). All these socio-economic benefits from CBNRM indicate that the programme has transformed some of the rural communities in Ngamiland from being beggars, living on handouts from government and donor agencies into productive communities that are moving towards sustainable livelihoods in their communities. These socio-economic benefits are therefore some of the main factors that make local people develop positive attitudes towards wildlife conservation in Ngamiland District.

Changing Attitudes Towards Wildlife Conservation

Recent surveys by the author show that in each village where the CBNRM programme in Ngamiland is implemented, there is a change of attitudes by local communities towards wildlife conservation. To illustrate this fact, Mbaiwa (1999) notes that in 1998 about 93.7% of the households at Sankuyo, Mababe and Khwai indicated that they did not have any role in policy making regarding wildlife utilisation and management in their district. As shown earlier in the paper, the government was at that time perceived to have usurped wildlife resource control and ownership from the local people. Wildlife resources were mostly viewed as government property and not a communal resource, benefiting mostly the government and tour operators. In a similar note, 71.6% of the households said they derived no benefits from tourism (e.g. income, employment, improved infrastructure such as water supply and roads). As such, households did not see the reason why they should participate in wildlife conservation, in so far as they did not have a role in wildlife management nor derived benefits from wildlife resources. There was actually hostility between DWNP and local communities in villages at the time. Mbaiwa (1999) notes that during house-hold interviews an old woman at Mababe remarked:

"*My grandchild, don't speak of wildlife in this area if you do not want to die, wildlife game scouts will soon arrive to arrest you and will finally kill you.*"

Mbaiwa (1999) also notes that a household respondent at Khwai remarked, "*how can we get benefits from wildlife resources when we do not have control over them and the use of the land. All belong to the Department of Wildlife and National Parks, who are making a request to us to re-locate from this place and give way to wildlife conservation.*"

At that time, poaching was a problem in Ngamiland and Botswana as a whole: Silisthena and McLeod (1998) noted, *"poaching, or the unlawful killing of wild animals, is a serious problem."* Surveys at Mababe and Khwai were carried out before CBNRM projects were implemented, while at Sankuyo the project had been ongoing for less than two years. These results show that the lack of socio-economic benefits and participation in wildlife management by these villages were the main factors contributing to the negative attitudes of local people in these villages towards wildlife conservation.

The 2001 and 2003 surveys by Mbaiwa found that there is a change of attitudes towards wildlife conservation in villages where the CBNRM programme is being implemented in Ngamiland District. Hostility between DWNP and the local people is also decreasing. The 2001 survey sampled the villages of Khwai, Seronga and Ditshiping, and found that about 60.9% of the households regarded it as necessary to have wildlife resources in the grasslands and forests of Ngamiland. In addition, 84.2% of the households stated that it is important to encourage and support the CBNRM programme in Ngamiland District (Mbaiwa, 2002b). The 2003 survey covered all the safari hunting villages including the five Okavango Communty Trust villages (see Table 1). Results show an increase in percentages, as 93.7% of the households stated that it is necessary to have wildlife resources in the grasslands and forests of Ngamiland while 94.6% supported the CBNRM programme in their villages (Mbaiwa, 2004d). Households in both surveys noted that they support wildlife conservation and CBNRM, because the programme has created job opportunities, generated income, provided assistance in times of death in a household, and encouraged rural development in their villages. In addition, Mbaiwa (2004d) found that the involvement of women in West Ngamiland District in basket production for tourism purposes has also led to the development of positive attitudes and perceptions by basket weavers towards natural resource, particularly Mokola palm (*Hyphaene petersiana*), conservation. About 88.5% of the basket weavers stated that basket making is an important cultural tourism product that has increased their income earnings capacity and livelihoods. Similar studies in Zimbabwe's CAMPFIRE by Mwenya *et al* (1991) have shown that people living in wildlife areas tend to perceive wildlife as a valuable resource when they derive benefits from it and are involved in its management. The authors state that this often results in local people using wildlife resources sustainably.

The changing attitudes of the people of Ngamiland towards wildlife conservation indicate that CBNRM has a major role to play in sustainable wildlife utilisation in the district. In addition, most of the people have come to appreciate CBNRM as a new economic activity that can improve their livelihoods. These communities recognise the link between CBNRM and natural resources conservation and increased economic opportunities for people in Ngamiland. Local people now see themselves as partners in wildlife conservation and the development of the CBNRM programme jointly with the government, particularly DWNP, which a decade ago was perceived with hostility and not wanted in villages. The change in attitudes is important in the sustainable use of natural resources in the district.

Conclusion

This paper has shown that negative attitudes by local communities towards wildlife conservation were, until the last decade, very high in Ngamiland District. However, the introduction of CBNRM in the District since the late 1990s has led to the reduction of these problems in participating communities. Through CBNRM, rural communities in Ngamiland are beginning to view wildlife as a valuable resource that they should use sustainably to improve their livelihoods. CBNRM has created employment opportunities, and most of the income generated through joint venture agreements has contributed to community development projects such as groceries, bottle stores, transportation and recreational facilities. In addition, the CBNRM programme has provided a framework for rural communities in Ngamiland to participate in the decision-making process regarding the management of natural resources around their villages. Each village or Trust has escort guides who enforce their community's commitment to sustainable wildlife utilisation. In May 2004, escort guides in NG 43 stopped the auther while driving from Xaxaba to Maun at 8:00 pm at night, suspecting him to be a poacher. This indicates that local communities now see themselves as partners in natural resources management, particularly the available land and wildlife resources in the area. However, the changing attitudes of rural communities towards wildlife conservation largely depend on the level of performance of the CBNRM project in particular villages. In villages where CBNRM is more effective and successful, such as Sankuyo, the perceptions of local people towards wildlife conservation are higher than those where the projects perform poorly and the distribution of benefits to households and the community are lower.

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CBNRM for Whose Benefit? A Case Study of Subsistence Hunting on the Boundaries of Botswana's Northern Protected Areas

By Michael Taylor

Abstract
Using a case study from northern Ngamiland, this paper will examine the impact of hunting legislation on hunting practices by the residents of Community Hunting Areas on the periphery of the Moremi-Chobe parks complex. The residents of these areas are primarily San, who have a heritage of hunting and gathering for subsistence. The evidence from these areas suggests that despite the shift in rhetoric to Community Based Management of Natural Resources (CBNRM) over the last decade, decision-making control over how to use these resources, particularly wildlife, remains highly centralised. Local residents do assert a sense of ownership and control over wildlife, but because the restrictive legislation does not allow them to do subsistence hunting within the confines of the law, it is classed as illegal. The impact of hunting legislation in these areas has thus been minimal in controlling subsistence hunting. Its more significant impact, despite the CBNRM programme, has arguably been instead to undermine effective community management of wildlife resources.

Introduction
Community Based Natural Resources Management (CBNRM) has gained the status of an established and mainstream approach to rural development and conservation throughout southern Africa, as it has in many other parts of the world. Almost all southern, central and eastern African governments have instigated CBNRM programmes that emphasise community participation in, and benefit from, conservation initiatives.

CBNRM initiatives arose primarily out of a concern to find more effective ways to conserve Africa's wildlife after it became clear in the 1970s that established methods of fortress-style conservation were failing. This legacy has left the CBNRM movement with a distinct bias towards achieving conservation goals. The implication of this is that the other side of CBNRM - social development – may be appended simply as a means to achieve the primary goal of conservation. This has become evident in many instances of the implementation of CBNRM programmes, prompting widespread observations that it is in practice primarily an attempt to co-opt local populations into official conservation goals (Matenga [1999] for Zambia, Sullivan [2000] for Namibia, Twyman [1997] for Botswana, Hill [1996] for Zimbabwe). As such, areas in which CBNRM is implemented can become not local zones of empowerment, but a geographical *expansion* of state authority beyond the boundaries of protected areas and into rural communities.

This paper uses a case study from northern Ngamiland, Botswana, to examine one aspect of the contest between communities living adjacent to parks and the state: that over subsistence hunting. The case studies are based on ongoing research by the author since 1996 in two villages in northern Ngamiland: Khwai and Mababe. These are both villages of about 450 residents, virtually all of whom are Basarwa (also known as 'Bushmen'or 'San'). Despite comprising a very small minority of the overall population of southern Africa, Basarwa, by virtue of often residing in remote areas, form a disproportionately large number of potential client villages in CBNRM, particularly in Namibia and Botswana. For example, 24 of the 45 Community Trusts in Botswana officially registered by 2000 represented members who were primarily Basarwa. Nonetheless, the experiences of Khwai and Mababe are of wider relevance than for only these villages.

Another important commonality between these two villages is that they lie on the boundaries of protected areas: Moremi Game Reserve and Chobe National Park. When these Parks were created in 1963 and 1960 respectively, the residents of both villages lost access to land and resources within the new protected areas that they had regularly used in the past. Although their history of marginalisation from authority over land and other natural resources accentuates the stakes of Basarwa in the CBNRM programme, many potential beneficiaries face common issues in its implementation. In this sense, their context

provides, as it were, a lens that magnifies and clarifies more general dynamics of CBNRM of importance to rural residents throughout southern Africa.

Wildlife Use in Khwai and Mababe

Until 1996, the residents of Khwai and Mababe were eligible for Special Game Licences (SGLs), which allowed households classed as dependent on wildlife an annual quota of animals that could be hunted year-round. SGLs were introduced in part to legitimise subsistence hunting by Basarwa, a practice that had been regarded as illegal but was generally tolerated. With the move to CBNRM in 1996, SGLs were rescinded. These were replaced by an annual quota of animals given to the village as a whole.

Nonetheless, Khwai and Mababe were no exception to the general pattern of Basarwa villages in the move from SGLs to CBNRM - the number of animals given in the community quota being significantly less than the sum of animals of all the individual SGL holders for the village. Using Khwai as an example, the sum of the animals listed on the individual SGLs held by residents yielded a potential 215kg of dressed meat per person per year. The community quota, in contrast, yields a potential 57kg per person per year, 50kg of which is elephant (which many do not eat). Furthermore, the animals on the community quota can only be hunted within a six-month hunting season (April to October). The government retains the prerogative, however, to withhold the community quota, which it did for Khwai in the 1998 hunting season, citing internal divisions within the village as their reason for doing so. Although CBNRM is praised as heralding a 'people-friendly' era of conservation, its introduction in Botswana has therefore severely limited access to game meat.

One of the main reasons for moving from an individual quota under the SGL system to a community quota system under CBNRM was that SGLs allowed 'biologically unsustainable' levels of off-take (Hitchock *et al,* 1996). As SGLs were inefficiently monitored, in practice they translated to a free licence to hunt what one wanted, and there was often little correlation between the animals stated on the license and what was actually hunted. The full quota was very rarely used, but specific quotas on particular animals, such as buffalo and eland (which were removed from Ngamiland's SGLs in 1991) were often exceeded. The existence of a legal hunting quota also made it easier to hunt animals not on the quota, such as giraffe, as once the meat was cut into strips, it could not easily be identified.

Hunting options under the formal licensing system are therefore very restricted, yet many Basarwa consider game meat to be an essential part of their diet. In Botswana as a whole, meat consumption (usually beef) is high, and it is often eaten daily. Within this national 'meat culture', many Basarwa lay specific claim to game meat, as expressed in a conversation about hunting between several men in Khwai:

Rra Diatla:
> *There is no Motswana [citizen of Botswana], who can live without meat...*

Moses: (*interrupting*)
> *Not 'any Motswana' - you are different, say your ethnicity [letso]. I cannot live without game meat, because that it what my culture is.... That is my life'.*

Such narratives of identity serve primarily to legitimate what the law has defined as illegal (see Taylor, 2001b; Taylor and Barnard, 2002). The restrictions on hunting present a problem that is especially acute when the hunting season is closed. 'For six months we cannot eat meat, if this continues, we will all be arrested for poaching', Rra Diatla went on to comment.

The legal restrictions that have grown up to regulate hunting have provoked a change in hunting patterns, but not necessarily a significant change in the amount of game meat that is consumed. Despite legislation, Basarwa continue to hunt regularly. Although legislation has had little impact on levels of hunting, it has had a significant impact on the way hunting is done, how it is internally regulated, and in how Basarwa perceive their legitimacy as citizens of Botswana. Here the informal - though not illegal - ways in which meat is obtained is outlined, before going on to illegal hunting.

Informal Procurement of Meat

Apart from the regular licensing and quota system, there are three possible avenues in procuring wildlife meat without falling foul of the law:

1. Building a relationship with a safari hunter in a neighbouring concession area, who provides some of the meat from commercially hunted animals;

2. Chasing predators off their kills and taking the meat; and

3. The destruction of 'problem animals' that have damaged or endangered property.

The first is a restricted option, dependent on the goodwill of a neighbouring lessee. Khwai was the only village able to make such an agreement, based on a moral claim to a neighbouring concession area being the land that many of their ancestors had used. After some negotiation, the lessee agreed to allow Khwai residents to take the meat from some of the elephant carcasses shot by clients. To date the village benefits from this option through joint venture agreements with their partners.

The second is an option that is more widely possible, and involves chasing predators (wild dogs, leopards, lions and hyenas) off their kills. This is a practice that has existed for as long as memory stretches in the northern sandveld, as well as elsewhere in Botswana, and Basarwa often refer to lions as 'our [hunting] dogs'. Although officials questioned differed in their opinions as to whether this contravened the law, wildlife legislation is silent on this issue. Chasing predators off their kills has thus been prompted by legislation to become a comparatively more important means of obtaining meat than it used to be.

The third means by which meat can be informally, but legally, obtained is through the destruction of problem animals: animals that damage crops, kill livestock, or endanger people's lives. Although the trophies from such animals belong to the Department of Wildlife and National Parks (DWNP), the meat is generally free to be consumed by whoever wants it. This was starkly illustrated in a case in Mababe just before the harvesting season, when two elephants were shot that had entered fields and helped themselves to the knee-high sorghum and maize plants – already sparse from the poor rains. For a week the village was awash with meat as men, women and children cut up the carcasses into strips - some for their own consumption, but most to dry and sell in Maun. Elephants are an extreme example of the utility of dead 'problem animals'. Although hippo, lions and leopards have also been shot, it is only really for elephants that the benefits outweigh the costs of the damages incurred.

Informal methods of procuring meat do, therefore, exist, but they are limited in that their timing is generally beyond the control of residents. Hunting camps only provide meat in the hunting season, finding a predator's kill is good fortune, and only the animals decide when they will become a 'problem' to residents. None of these methods solve the need for a regular supply of game meat. This is a need only regular illegal hunting can meet, as expressed by Rra Diatla in Khwai:

"If they do not listen to us, we will continue stealing animals, because we are oppressed by molao [law] that we did not make or understand. We should be given the prerogative to decide how to conserve our animals. We need animals for funerals and motsetse [celebrations associated with the mother coming out of seclusion after childbirth]. For these things we need ready access to animals, as we have no livestock or fridges. It is us who must decide on quotas. We are not used to being told when to shoot animals and not. We end up poaching.'

Illegal Hunting
A wide range of animals are hunted, both small and large. Small animals such as springhares, tortoises, turtles, pythons, duiker, warthogs, iguanas or civets can be caught by both men and women on short trips out from the village, using snares or spears and dogs rather than guns. Larger animals, such as impala, that are old or injured may also be caught by such methods. Although technically illegal, the hunting of springhares is tolerated by many DWNP officials. Hunting of other small animals is generally not tolerated, and those classified as endangered species, such as pythons, carry a maximum P10,000 fine or ten years in prison.

The hunting of large animals is more difficult. A gun is required, but gun ownership – especially of rifles – is severely limited. In the past, those that did not have guns and were fit enough sometimes ran down their prey with a spear. As with Khwe-speaking Basarwa more generally, spears were a more common hunting tool than bows and poisoned arrows (e.g. Hitchcock, 1995). Hunting trips for large animals need to go beyond earshot of the village, and generally last a day or more, involving several men. The animal is skinned in the bush, the skin buried to hide evidence, and the meat carried back to the village. If there is a risk of being seen, the meat may be hidden on the outskirts of the village and then brought in after dark.

Meat from hunted animals is used primarily for subsistence. Some of it may be sold within

the village for nominal amounts, but only a few individuals made a habit of hunting specifically to sell. Jewe was one such person, a man in his forties from Khwai, who spent most of his time in the yard of whoever happened to be selling homebrews that particular day. If he wasn't drinking, he was usually out 'hunting for alcohol'; financing his drinking debts by trips with a spade and his *gondo* to catch springhares, which he sold for P10 each back in the village. The occasional hunting of a large animal specifically to sell the meat is also a means of meeting specific financial needs, such as paying for a sick relative to be seen by a healer. Basarwa have thus attempted to use wildlife in this sense to meet their needs in much the same way as pastoralists elsewhere in Botswana use their livestock.

Residents of the northern sandveld have a long history of selling wildlife products. From the 1850s, they were the primary producers in the ivory and fur trades. As Maun (the district capital) grew, Khwai and Mababe began to take advantage of the market created by local inhabitants for meat. The Divisional Commissioner commented in 1962 that Mababe 'live[s] by hunting buffalo and selling biltong in Maun at ten shillings per bundle' (BNA, 1962). A bundle consists of about 15 one metre long dried strips of meat. Although technically illegal, this practice continued under the SGL system. By 1998, bundles were being sold for P120 each in Maun. Most bundles sold in the late 1990s were from shot problem animals, especially elephants, as illegally hunted meat was generally consumed, shared or sold within the village. Although a whole animal was rarely sold, the potential returns are high. For example, a buffalo could yield 13 bundles worth P1,560, or three months wages for manual work. A giraffe could yield 24 bundles worth P2,880.

Much more lucrative than selling dried meat, however, was the potential income from selling ivory. The ivory trade reached a peak in the 1970s and 1980s, but then fell dramatically with worldwide restrictions on ivory trading. During this latter ivory boom, as in the boom of the nineteenth century, Basarwa became involved in guiding hunters, and as hunters themselves. Tusks were generally sold to middlemen, who paid prices as low as P20 per tusk, and then sold them on to dealers for export. Basarwa were at the most vulnerable end of this chain. Often they were paid far less than they were promised, and could be assaulted with impunity. On one occasion, for example, an elderly man was beaten and left for dead in the bush after guiding hunters who killed twelve elephants. Only very few individuals were able to integrate themselves as equals into syndicates – generally comprising a group of several Batswana – who pooled profits to help pay fines, and thus avoid jail sentences.

Many elephants shot illegally were additional to those legally shot under the single citizen licences that were raffled to citizen applicants each year. Illegal killing thus became more difficult once elephants were removed from citizen licences in 1983, a ban that lasted until 1996 when trophy hunting of elephants was resumed. Rhino horn provided an even more lucrative, but very severely restricted, form of income, until the rhinoceros reached near extinction in the early 1990s.

Falling Foul of the Law

It is these latter forms of hunting - large animals such as giraffe, and commercial ivory hunting - that have brought Basarwa to court for poaching. Most of the men older than forty in Khwai and Mababe have been to court at least once for offences related to illegal hunting, and about one third of them have spent time in prison as a result. Several also claim to have been tortured (cf. Mogwe, 1992; Ditshwanelo, 1996). Actual prison terms have ranged from several weeks to four years. Most of these cases, however, were in the 1970s and 1980s, and were due to hunting within the park, in close proximity to the village, or for attempting to sell ivory to undercover government officials. 'Then we were stupid, and hunted right in front of Game [DWNP]. Now we think to hide ourselves', explained one ex-offender.

Despite the long history Basarwa have of hunting for both their own consumption and for trade, many observers make a distinction between 'subsistence' as opposed to 'commecial' hunting, and associate Basarwa with the former. Such dichotomies carry little resonance with residents of Khwai or Mababe. '*Those who had cows made money from them, and we made money from our animals'*, argued Sangando, as we talked about the time he was apprehended by an undercover policeman, to whom he offered to sell two tusks for the paltry sum of P30. '*God gave us those things to use'*, Ogwe said of the elephants he hunted on his off-days from the South African Defence Force in Caprivi. Yet, the image of 'proper' Basarwa as purely 'subsistence' hunters remains prevalent. This view is evident in the

reasons DWNP gave for beginning to phase out the SGL system in 1995. Showing little understanding of the mixed nature in the way Basarwa have used wildlife products, they claimed that SGLs were being 'abused', because some holders had:

1. Other sources of livelihood;
2. Sold meat from animals hunted with SGLs; and
3. Used 'non-traditional' means (i.e. guns) for hunting (Hitchcock, 1996).

Ironically, the new community hunting quota system under the CBNRM programme swings to the other side of the dichotomy by encouraging the purely commercial utilisation of wildlife (Taylor, 2001a).

Impacts of Hunting Legislation

The one impact that progressively more restrictive legislation has *not* had on the hunting patterns of the residents of the northern sandveld is to significantly curb hunting, perhaps with the single exception of elephants. Apart from criminalising a central marker of Sesarwa identity, thus entrenching the peripheralisation of Basarwa from 'mainstream' society, legislation has affected hunting practices in a number of ways. It has:

1. Modified the strategies used to procure game meat, so as to cope with the effects of legislation;
2. Reduced the consistency with which meat is legally available; it is often either unavailable, or else there is a glut;
3. Restricted sharing networks of meat, as meat generally has to be kept hidden within the village;
4. Encouraged wasteful and abusive hunting practices; and
5. Undermined the ability of Basarwa to effectively manage their own wildlife utilisation by transforming individual hunting to a hidden activity.

The first of these has already been covered - a wider variety of informal means of procuring meat are employed, and illegally hunted meat is generally kept hidden. The second is self-explanatory: the means of legally obtaining meat are mostly contained within the officially defined six-month hunting season, and even then may be limited to only a few occasions. This is exacerbated by the cover that the presence of 'legal' meat in the village gives to 'illegal' meat, making these times the easiest for individuals to hunt, and times when there is no legal meat the hardest to hunt.

The final three points relate to the 'individualisation' of hunting and the use of meat that wildlife legislation has inadvertently encouraged. The present system has made individual hunting difficult, but also a necessity. It is difficult because the quota is now given on a communal basis; but individual hunting remains necessary because the communal quota does not provide adequate subsistence for all residents for the whole year.

Making individual hunting illegal creates a realm of hunting that needs to be hidden. Even with the legitimacy afforded by Special Game Licences, hunting was generally hidden from officials as much as possible (e.g. Bonduriansky). This was both an effort to retain control of an institution Basarwa felt was their own rather than the government's, as well as to avoid possible accusations of mis-hunting. Once SGLs were rescinded, the need to keep individual hunting hidden was accentuated - not only from officials, but also from other individuals with whom one may have had a disagreement. Khwai and Mababe both had examples of residents who had acted on a grudge by reporting fellow villagers to DWNP for illegal hunting. The secrecy, which thus enshrouds hunting, makes sharing beyond the household more difficult, especially affecting those unable to hunt (single women, elderly, infirm), and who do not have a man capable of hunting in their household. Commenting on this trend, Mma Judge from Mababe complained that the individualistic attitude she associated with white people had affected Mababe, preventing people from sharing meat: '*It is these [laws on hunting] that corrupted us. Now people here want to live like sekgoa [as white people], looking after only their own children. But we can't live like that'*.

Moreover, making hunting a hidden activity encourages wasteful practices, such as leaving the skins in the bush to avoid incriminating evidence or leaving some of the meat if there is too much for a lone hunter to carry. It simultaneously acts to undermine the ability of the village as a whole to regulate such hunting practices, as keeping such activities out of the

public arena makes it all the harder to exercise accountability in restricting abuse. This was illustrated by an incident in Mababe during a lunch break from drought relief work. Republic, the headman's daughter, saw one of the young men eating meat. It was soon after an elephant had been killed, so Mababe was awash with elephant meat, but Republic did not eat elephant. She recognised the meat he was eating was something different, and asked for some. '*It's elephant meat*,' he replied, trying to avoid sharing it, '*what other meat is there in the village?*' An argument then developed, and the other men present rebuked him for leaving most of the animal he had killed in the bush, and for not telling people that he had meat. He defended himself by saying that he had not wanted to risk being reported. Kethapile, a VDC member, then told him off for wasting a resource that belonged to all of them by not calling them to help carry more of the meat back to the village. He also berated him for not taking into account the destitutes in the village, who lacked bullets or any means of hunting. Others present threatened to kill him if they found him in the bush doing the same again.

While the bystanders' motivation for berating the hunter in this instance was as much his selfishness in not sharing the meat as his wasteful hunting practice, this incident nevertheless illustrates an attempt at stewardship by the community, as well as the waste and individualism that hunting legislation can encourage. If he had been more careful and not eaten the meat in public, as is more common in Khwai with its heavy DWNP presence, this incident would not have been provoked, denying the opportunity to exert a form of collective control over harmful individual practices. In a contrasting example, Twyman (1997) notes that restrictions on wildlife utilisation had undermined the stewardship patterns of Basarwa in Okwa CHA in the Kalahari to the extent that abuse, such as hunting pregnant female gemsbok in the breeding season, was common. Although such abuses (and they would be acknowledged locally as such) occurred in the northern sandveld, they were not common - indicative of the relative strength of remaining sentiments of stewardship. The erosion of collective control over wildlife is ironic with the move to a community quota under the CBNRM programme, which is ostensibly intended to facilitate *greater* community control of wildlife.

Conclusion

Livelihood strategies associated with wildlife thus bring to the fore the importance of considering the semiotic implications of components of livelihood strategies. In a wider pastoralist economy undergoing rapid economic development, living off wildlife is associated with primitivism and backwardness. Yet to many Basarwa, wildlife defines a way of life that marks them as different from the dominant population. This underlines the principle that struggles over material resources are thus frequently semiotic struggles - attempts to attach specific values and meanings to resources or practices. For the residents of the northern sandveld, their material struggles have centred on control over natural resources, particularly land and wildlife.

Legislation restricting hunting by Basarwa gives little cognisance to the opinion many Basarwa have that wildlife is a resource that they are entitled to because of their specific history, promoting their unwillingness to submit to external controls over its use. Although hunting and gathering may become peripheralised as subsistence strategies through legislation and welfare handouts, these practices remain essential as markers of identity.

Current policy and legislation severely restricts legal access to wildlife, yet wildlife forms an important part of the diet of many Basarwa due both to its association with their heritage and the very real demands for food. Current restrictions therefore do not fulfil their purpose of significantly reducing illegal hunting. They instead have a number of unforeseen implications, some of which are counter to the intentions behind official policy on wildlife. Forced to become a hidden activity, hunting becomes less efficient as parts of the animal are left in the bush to avoid incriminating evidence. In addition, the capacity of local management systems to control abuse is undermined. For these reasons, increasing - rather than limiting - the possibilities for legal subsistence hunting by Basarwa may ultimately promote the more effective conservation of wildlife. This could be achieved by either increasing the subsistence species on the community quota, or else maintaining a restricted form of individual Special Game Licenses alongside community quotas.

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Every River has its People Project

Best Practices and Appropriate Methodologies for River Basin Management; Lessons Learned from the Case of the Okavango Delta in Botswana

By *Lefatshe I. Magole and Montshiwa M. Montshiwa*

Abstract
Political boundaries have forced national governments to restrict planning and natural resources management to arbitrary delineations that sometimes disregard components of trans-boundary ecosystems. This article documents the best practices and lessons learned from the implementation of The Every River has its People (ERP) project, a basin-wide project focusing on the Okavango River Basin, spanning the three countries of Angola, Botswana and Namibia. Project documents and reports were reviewed, and interviews were conducted amongst stakeholders who participated in the project. The authors conclude that the ERP identified a niche in the management of the Okavango River Basin that was unfulfilled and commenced a credible process of fulfilling that niche. The basin approach is favoured over the national one, and the project implementation structure allowed for stakeholder participation and collaboration. Caution is however recommended about accepting wholesale some phenomena that appear so self-evident that their prevalence is generally regarded as common knowledge among development professionals in African governments, international donor agencies and non-governmental organisations. These have tended to acquire the status of conventional wisdom, yet some of them may be misleading.

Background
In 1994, the Okavango River basin states (Angola, Botswana and Namibia) signed a tripartite agreement known as the Permanent Okavango River Basin Commission (OKACOM). This agreement was reached as a response to some perceived threats, and committed the riparian states to manage the Okavango River based on the principles of equity, sustainability and openness, as well as to jointly develop an integrated basin-wide management plan.

In 1996, Namibia experienced inadequate rainfall and was left in a critical state (Rothert, 1999). The Namibian government responded by accelerating plans for the final phase of the central water supply system - a pipeline link to the Okavango River. The proposed project aroused considerable debate from within Namibia as well as Botswana, and internationally. Conservation groups lobbied communities living along the Okavango River to oppose the pipeline project. The Okavango Liaison Group (OLG), consisting of members from NGOs, communities, academics, trade associations and individuals was established. OLG submitted a petition to the governments of the riparian states as well as to OKACOM, opposing the Namibian pipeline and requesting to henceforth be involved in the decision-making process about the Okavango River Basin. The OLG also mounted public outreach programmes to inform Okavango Delta communities about water resource issues affecting the Okavango. Ultimately the OLG, through the Kalahari Conservation Society (KCS), formulated a project proposal that sought to improve the capacity of communities and community institutions, which culminated in the birth of the Every River Has Its People Project (ERP).

The overall goal of the ERP project was to promote the sustainable management of natural resources in the Okavango River Basin for the benefit of basin residents and states, through promoting and facilitating the effective participation of basin stakeholders, particularly communities, in natural resource decision-making and management related to water resources. The project was funded by the Swedish International Development Agency (SIDA) over a three-year period.

ERP is a regional project in which several NGOs from Angola, Botswana and Namibia (Association for Environment Conservation and Rural Development, Desert Research Foundation, International Rivers Network, IUCN Botswana, Kalahari Conservation Society, Namibian Nature Foundation, Integrated Rural Development and Nature Conservation, and the Rossing Foundation) participate.

The ERP was designed using a three-pronged approach consisting of socio-ecological surveys, development and testing of educational materials, and capacity building for stakeholders. Based on the analysis of the socio-ecological surveys, educational materials were produced to address issues that were emerging. Thereafter, capacity building efforts were targeted for the gaps identified.

The results and outputs of the project were a series of posters, booklets, consultancy reports, school competitions and mini school projects. The project produced socio-ecological survey reports of the Okavango Delta and part of the Okavango Basin, a Okavango River Basin map and the OKACOM brochure. Three posters were prepared showcasing problems facing the Okavango River Basin and their possible solutions.

This article is set to document the best practices and lessons learned from the implementation of the ERP in Botswana. It has considered in particular how project tools and methodologies have been applied in the following areas:

a. Developing a common agenda among the basin-wide stakeholders;

b. Promoting community participation in decision-making within the river basin; and

c. Developing user-friendly educational materials for different stakeholders.

This article makes reference to numerous reports that have been produced throughout the planning and implementation of the project, supplemented by interviews conducted with representatives of different stakeholders involved in the ERP.

Discussion on the Effectiveness of the Project Approach, Tools and Methodologies

Development of a Common Agenda Among Stakeholders

Stakeholders interviewed were found to be familiar with the objectives of the ERP. They stated that they participated in the ERP because they shared similar objectives. These common interests lead to consistently high attendance in meetings/gatherings organised by ERP. Interviewed stakeholders also stated that they viewed the ERP as a legitimate project because it had been introduced through existing District structures, such as the North-West District Council, the District Land Use Planning Unit, Ngamiland NGO coalition and village Kgotlas. The ERP also linked up with other natural resource management related initiatives within the Okavango, such as the Okavango Delta Management Plan project.

Facilitation of Stakeholder Participation

Community Participation

Community members interviewed commended the Basin-wide Forum as a structure that promoted community participation in decision-making within the river basin as well as representation in the Permanent Okavango Commission (OKACOM). The BWF is made up of community representatives from all three basin states. Similarly, OKACOM has also seen BWF occupying an important niche in the basin-wide management approach. Communities delegated respondents who participated in ERP activities, were well informed about the ERP, the Okavango Basin, resource status and trends. However, the delegates and the ERP did not seem to have concrete mechanisms for obtaining community opinion and agreeing on an issue or position before attending national and international meetings, nor for providing feedback to communities. Due to this lack of feedback, some community BWF members were not conversant with OKACOM and its objectives and still held the misconception that Namibia may be blocking the river.

Reference Group Participation

The Reference Group made up of stakeholders at the technical level was set up to provide advisory guidance to project implementation. The minutes of Reference Group meetings reflect that stakeholders were kept abreast with the project activities at a technical level, and their contributions and suggestions were incorporated in the project process, giving them motivation for further participation. The Department of Water Affairs used the ERP community consultative structures (Reference Group, Focus Groups, Basin-wide Forum) to further discuss river blockages caused by papyrus in the Okavango Delta as well as the Department's intentions of removing the blockages mechanically. This suggests that the methodology employed by the ERP was able to facilitate stakeholder participation regarding a variety of technical issues.

School Participation

Teachers interviewed appreciated the targeting of schools within the community by the ERP.

Primary school teachers interviewed made the point that, although environmental education has been incorporated in the school curriculum, primary schools in particular are not adequately resourced to teach it. Therefore the ERP school programme was able to fulfil a significant resource gap in primary schools, even if only partially.

Private Sector Participation

There is limited evidence of private sector participation in the ERP. At a technical level, the Hospitality and Tourism Association of Botswana (HATAB) was selected to sit in the Reference Group representing the private sector. However, minutes of the Reference Group meetings show that HATAB only participated in the inaugural meeting. Subsequently, there are no records of HATAB's participation in the stakeholder workshops. Perhaps safari operators should also have been singled out as a focus group and engaged by the ERP.

Participation of Stakeholders in Survey Planning

The socio-ecological survey method lends itself to participatory application; however, there is no evidence of the first step of survey planning with stakeholders. Records show that questionnaires were formulated by national consultants and reviewed by the region-wide consultant. The questionnaire had preconceived answers. The Basin-wide survey report also stated that the surveys were too quantitative and less qualitative, and hence could not stimulate meaningful dialogue. According to Chambers (1997), "the essence of participatory learning and planning is changes and reversals of role, behaviour, relationship and learning. Outsiders do not dominate and lecture, they facilitate, sit down, listen and learn; they do not transfer technology, they share methods, which local people can use for their own appraisal analysis, planning action, monitoring and evaluation." The extent to which communities participated in the formulation of a tool that would collect information from and about them appears limited. This is a tendency for organisations to seek the benefits (financial, political and symbolic) of participatory planning, but avoid the costs of actual participation.

Packaging of Information and Development of Educational Materials

The authors found that both the procedure for developing and packaging educational materials and the content thereof appear to have been influenced by two factors, namely the team composition and the analysis adopted for the socio-ecological survey study.

Firstly, packaging information and developing educational materials was the prerogative of a team composed of NGOs and government staff (Reference Group). The absence of community representatives in this team reflects a flaw in the socio-ecological survey technique drawn up for the project. In particular the component of the technique that required communities to be involved throughout the process was compromised. This revealed the power relations between project officers and other technical staff on the one hand and the communities on the other, which may be said to have been imbalanced in favour of technical staff. Project staff members are usually not passive facilitators, they shape and direct the process as it appears to have happened in this case. At the most basic level, project staff "own" the research tools, choose the topics, record the information, and abstract and summarise according to their criteria and relevance.

Given these skewed project staff-villager power relations that prevailed throughout the implementation of the project, it is not greatly surprising that the educational materials reflected and endorsed some "official" views. For instance, the socio-ecological survey poster did not reveal alternatives to the official view, but served to further legitimise some perceptions as facts. There is limited evidence to show that there was learning from communities by Every River staff and government officials associated with the project. Indigenous knowledge does not seem to have informed the outcome of the surveys, as there are no explicit indigenous solutions reflected in the educational materials. Furthermore, some aspects of the educational materials reflect perceptions as facts. For instance, there are naturally occurring trends that are little influenced by human activity, yet the growing human population is reported to be putting pressure on most resources. Thus, there is no distinction between natural changes occurring in the Okavango and those purported to be influenced by human activity.

Secondly, the socio-ecological survey is silent on previously conducted studies. Some of these studies include the 1994 Ngamiland Land Use Plan, 1999 Socio-economic Effects of the Contagious Bovine Pleura Pneumonia (CBPP) in Ngamiland, the 2000 Conservation International (CI) organised Aquatic Rapid

Assessment of the Okavango Delta, and the 2000 EIA for Ngamiland veterinary fences. In addition some fundamental facts argue against some of the results of the surveys. These include the eradication of 320,000 head of cattle from Ngamiland district in 1996-97, which abruptly removed a significant ecological regulator within the system. The subsequent exodus of people from small rural villages/settlements to bigger villages as shown by the 2001 population census does not feature. Though the surveys raised some substantive issues, the issues were not evenly interrogated in depth, hence the analysis remained largely superficial.

Examples of Lightly Interrogated Resource Issues

1. While fire was an important tool for resource management in the Okavango River Basin, the law in Botswana has outlawed the use of fire in the veld, regardless of the benefits of this ecological regulator. The position taken advocates for fire suppression rather than for management, which would take into consideration appropriate timing, cautionary measures and monitoring.

2. With regards to fisheries, issues include the absence of a commercial market for fish, the absence of a fisheries policy and fisheries regulations, and lack of access to fishing grounds as dictated by the delineation of Controlled Hunting Areas (CHAs).

3. Increasing frequency of crop and property damage, injuries and even loss of human life by elephants. This is correlated with the large elephant population and the ban on elephant hunting.

4. Farming in the floodplains (molapo farming) is another issue that the communities seem to be pushing for, whilst the government has stopped allocating fields in the flood plains (Kgathi *et al*, 2003).

5. The threat to the Okavango posed by alien plants and animal species (for example *Salvenia molesta*, an alien plant weed found in the Okavango, that has the potential of choking aquatic life in lagoons and channels) received little attention.

6. Diseases of people and livestock prevalent in the Okavango also remain lightly interrogated.

Lessons Learned and Recommendations

Regional (Basin-wide) versus National Approach

The basin-wide approach of managing river basins such as the one used by ERP is favoured over and above a national approach that is limited by political boundaries. A basin-wide approach recognises the natural integrity and the ecological processes thereof that sustain the basin as an entity. More importantly, stakeholders within the basin are able to plan together, communicate, eliminate misconceptions created by border separations, and optimise on the equitable and sustainable utilisation of basin resources.

Stakeholder Participation

The ERP design process was inclusive of all stakeholders, and had an emphasis on local communities at grass roots level. The process also ensured active participation of all stakeholders by setting up representative structures at all levels. There was vertical and horizontal integration of stakeholders in the project implementation process. However, feed back mechanisms for community representative delegates must be formulated by each of the committees or groups, as must be indicators of success.

Stakeholder Collaboration

The objectives of the ERP were crafted such that they addressed issues relevant to stakeholders, as they were synonymous with stakeholders' interests and agenda. This encouraged and motivated stakeholders to collaborate in achieving common goals. Commitment by stakeholders towards ensuring project success was achieved.

Empowerment of the Basin-wide Forum

It is important that the Basin-wide Forum is also represented in national and district decision-making bodies, such as the District Land Use Planning Unit (DLUPU) in Ngamiland. The BWF should also be registered and have a legal framework of operation in the respective countries, so that the committee assumes legitimate community representative status within the governance systems and is sustained beyond the ERP.

Para-legal Capacity Building

Where national laws and policies are viewed by the community as restricting the wise use of resources, such as prohibitions against the

use of fire in resource management or molapo farming, the community must receive relevant capacity building to challenge the law and/or policy.

Differentiation of Issues by Country
Though there are some common crosscutting issues throughout the Okavango River Basin, issues unique to the respective countries must be recognised and specifically addressed.

Private Sector Involvement
The involvement of the private sector was limited in the implementation of the ERP. This sector has considerable influence in the utilisation of resources in the Okavango as well as in the policy direction of the management of those same resources. It is important that the sector's involvement in the ERP be raised.

Holistic Policy Formulation
Addressing the policy issues that impede the wise use of some resources requires the concerted efforts of several government departments. For instance, fisheries issues will require a joint effort of at least four different government departments (Fisheries, Water Affairs, Wildlife and Environmental Affairs) to address them. A cohesive policy formulation and review process needs to be put in place for the wise use of basin-wide resources.

Perception versus Fact
The ERP should be cautious in their publication materials to avoid supporting official views based more on perceptions than on facts, e.g. fire as a management tool.

Broad Based Socio-ecological Surveys
The inadequate analysis of socio-ecological surveys compromised the quality and content of information contained in educational materials produced for the project and the subsequent capacity building interventions. There is a need to conduct broad based socio-ecological surveys that would deal adequately with all pertinent issues.

Conclusions
The following conclusions have been drawn:

1. The ERP identified a need to increase community participation in the management of the Okavango River Basin, and initiated a process to increase that participation.

2. The ERP has successfully canvassed support and developed a common agenda for most of the Okavango basin-wide stakeholders.

3. The ERP successfully engaged existing local institutions in the implementation of the project.

4. The ERP successfully established the Basin-wide Forum for community representatives and linked it to OKACOM. The Forum appropriately fulfils the need to integrate community perspectives with technical and regional perspectives at OKACOM.

5. The ERP's environmental education mini-projects fulfilled a greater need at primary schools than at secondary schools, as the former lack the resources to undertake such projects.

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Natural Resources Management, Land Tenure and Land Rights - The Case of Basarwa Communities

By Masego Madzwamuse

Abstract
The paper brings the issue of land tenure and land rights to the fore of the debates on community based approaches to natural resource management. The argument in this paper is that, whereas we observe progress in the strides to directly involve local institutions in the management of natural resources, the devolution of management will fail if land tenure remains insecure. While we observe a shift towards community based approach in NRM, a contradictory trend is observed with regards to land tenure and land tenure reform whereby privatisation seems to be the preferred option. Community based approaches to natural resource management therefore have to be reconciled with land tenure reform through creating space for community rights to land rather than pursuing a single approach of the privatisation of land. Using the Basarwa as a case study it is argued in the paper that land rights are critical - especially the land rights of marginalised communities, whose livelihood remain largely based on the direct use of land and natural resources. Furthermore CBNRM in its current form needs to recognise and incorporate traditional land use and land management practices as part of a multifaceted approach to development.

Introduction
This paper sets out to explore issues around land tenure, land rights and natural resources management in Botswana. The Basarwa are selected as a case study as their livelihood strategies still remain largely based on the direct use of land and other natural resources. These issues become important due to the increasing shift towards involving communities in the management of natural resources through initiatives such as CBNRM. The significance of the land question to CBNRM and its implications for CBNRM programmes is interrogated.

The land question is increasingly becoming significant in conservation circles, as indigenous peoples and local communities are making a strong case and gaining support for reclaiming their land rights. However, in some areas indigenous peoples continue to be displaced by conservation initiatives through the gazettement or extension of protected areas, such as the Gemsbok National Park in Botswana (now part of the Kgalagadi Trans-frontier Park), Gonarezhou National Park in Zimbabwe and Limpopo National Park in Mozambique. Significant efforts to bring these issues to the fore in the international arena have been achieved through various processes such as in the Dana Declaration on Mobile Peoples 2002, the World Parks Congress in 2003 and the World Conservation Congress in 2004, all of which called for the recognition of indigenous peoples and local communities' land rights, as well as the role that indigenous knowledge systems have in the conservation and management of natural resources.

Furthermore, there are increasing numbers of protected area co-management arrangements between the state and communities, and the private sector and communities. However in southern Africa, the co-management of protected areas (game reserves, national parks and forestry reserves) remains largely an unexplored approach. The involvement of communities in the management of natural resources continues to fail to address the fundamental questions of land rights and ownership, especially the rights of marginalised communities and ethnic minorities.

The increasing shift toward the privatisation of land and state controlled land tenure systems has alienated local communities from the direct management of land and natural resources. Most communal land tenure systems remain informal. In cases where communal tenure systems are addressed, new and alien institutions are introduced that essentially distance communities from the direct responsibility of managing the land and natural resources, thus disempowering them.

It is important to note that in Botswana, land rights for communities whose livelihoods are largely based on the use of natural resources are insecure. This is due to the fact that the

legal system only recognises rights based on agro-pastoral land uses, while hunting and gathering are not formally recognised as land use and hence such rights are not protected.

Land, Land Tenure and Natural Resource Management – A Theoretical Perspective

Land and resource tenure governs and defines ownership and access, thus providing a gateway for using and beneffiting from those resources (World Resources Institute, 2005). As such, tenure is at the heart of the poors' ability to derive income and subsistence from ecosystems in order to provide a sufficient and sustainable livelihood (ibid). The above report further argues that, understood broadly, tenurial rights over natural resources are synonymous with property rights. Common property institutions have rules for access, reciprocity, sharing, social sanctions, appropriate harvesting behaviour and ethics (Berkes, 1995). Thus, tenure is not only a legal concept, but also a complex social institution that involves traditional practices and customary authorities as much as the formal laws (World Resource Institute, 2005). These are often referred to as tenurial arrangements - that is, the relationship between individuals and groups in respect to land, and their access to key resources found upon that land. Berkes and Folke (1994) argue that local and social systems of rights and responsibilities develop for any resource that is deemed important for communities. These institutions are by no means static; they evolve according to local needs (ibid). In order to come up with relevant and appropriate initiatives for CBNRM it becomes critical to understand first and foremost how communities organised themselves to make use of their land and to manage natural resources.

At the centre of these property rights are issues of land ownership and access, as land determines access to other key natural resources such as water, forests and wildlife. Rights to land by a group or individuals mainly entails rights to use, rights to exclude, and the right to alienate land or to allow others to make temporary use of it (Madzwamuse, 1998). There have been significant strides in re-contextualising African customary tenure and in moving it away from simplistic concepts that were previously based on western models of property (Wanjala, 2004). Nonetheless, the tenurial practices of sedentary communities engaged in agro-pastoral activities often drove the conceptualisation of land and land tenure (Madzwamuse, 1998). To this extent land reform debates in southern Africa (and possibly the rest of Africa) have been restricted to agricultural land reform, and not focused on the need for reform in relation to land set aside for conservation purposes or for communities that are not necessarily engaged in agricultural practices (i.e. hunter gatherers). In some cases African governments have tried to replace customary rights with entitlements, denying in the process a range of customary rights (i.e. the rights of women and hunter gatherers) (Alden-Wily & Mbaya, 2001).

Basarwa and the Land Issue

The relationship between the Basarwa, land and natural resources was strong during the pre-colonial era, but there has since been a gradual shift towards the State taking a more prominent role in managing natural resources. This shift has resulted in the marginalisation and dispossession of Basarwa, thereby denying them their land rights. It further alienated and weakened the ability of Basarwa communities to achieve sustainable livelihoods due to the lack of tenurial security. As an ethnic group, the Basarwa are amongst the poorest of the poor. As most Basarwa are located in rural areas where livelihoods are still predominantly land-based, it has been argued that their land issues are issues of human rights and social justice, which are necessary for improving their socio-economic and political position (Ng'ong'ola, 1997; Wily, 1994).

Some 20% of Botswana 60,000 Basarwa live in Ngamiland. The so-called 'River Bushmen' (referred to in Setswana as *Banoka*) live in and around the Delta, while the rest are mostly found in the Gantsi and Kgalagadi Districts. The ethnic Basarwa have been historically associated with hunting and gathering, which makes them different from the dominant Tswana ethnic group which is mainly agro-pastoralist. Much of the interest in Basarwa has arisen from their remarkable adaptation to one of the harshest environments in the world, the Kalahari Desert (Saugestad, 1998). Their ability to survive in an environment that for most of the year provides no surface water, and their dependence on a locally appropriate combination of hunting and gathering techniques and a form of social organisation, allowed for the flexible use of large territories that were adjusted to suit seasonal changes (Lee, 1972; Cashdan, 1993, Madzwamuse, 1998; Saugestad, 1998). The cultural differences between the Basarwa and the dominant Tswana agro-pastoral society have been important in defining the relations

between the two groups, and the way each relates to and uses land.

Over the years, the Basarwa have been increasingly marginalised and alienated from their ancestral lands as a result of various policies and processes, such as the Tribal Land Act, the Tribal Grazing Land Policy, and conservation policies. The system of land tenure under colonial administration that emerged after the proclamation of Crown Lands and the demarcation of the tribal reserves survived with minimal modifications until the attainment of independence in 1966 (Ng'ong'ola & Moeletsi, 1995). In 1968, the Tribal Land Act was proposed to transform that land tenure system. The purpose of the transformation was to accommodate modern concepts of land use and to democratise land administration. The first step towards this exercise was the formation of Land Boards to take over the land administration functions from the tribal authorities (chiefs). Land boards were established in areas roughly coinciding with the former native reserves that largely belonged to the so-called eight "major" tribes. These were recognised by the colonial government as having title to land, and comprised of all Tswana speaking groups; the so called "minority" tribes, such as the Basarwa, Bakalaka, Bayei and others, were not allocated land. These minority tribes, which had been denied title to land by the colonial administration, remained formally landless after Independence.

In 1976, three more land boards were established for the Chobe, Ghanzi and Kgalagadi tribal areas, the status of which was converted from state land to tribal land. This move improved the security of tenure of the Basarwa, Bakgalagadi and other minority ethnic groups. However, their problems were not completely addressed as the land board system was inadequate, having been designed against the backdrop of the dominant Tswana system of land tenure based on agro-pastoral land use.

In 1993, the Land Act was amended in order to extend land rights to all citisens irrespective of ethnic origin. However, this move still did not cater for the Basarwa communities, as no amendment was made to accommodate their different livelihood practices and experiences. Their tenure regimes thus remain informal and insecure (Alden-Wily & Mbaya, 2001). Land rights remained defined in agro-pastoral terms (Ng'ong'ola & Moeletsi, 1995; Ng'ong'ola, 1997) at the expense of hunting and gathering societies. It needs to be acknowledged that some of the Basarwa, e.g. the River Bushmen (BaBugakhwe and Xhanikhwe), were to a small extent engaged in farming and livestock-rearing land uses as a result of being in contact with the Bayei and Hambukushu (see Cashdan, 1983; and Barnard, 1979, 1986, 1992 & 1995).

The Tribal Grazing Land Policy, the 1991 Agricultural Policy and the Remote Area Development Programme (RADP)

Despite the general shift towards local accountability in land use and management matters presented by the establishment of land boards, critics have argued that there has been a slow but clear reversal of policy since 1975 that has led to an increasing centralisation of land administration (Neme, 1995). The de-linking of communities from the land they occupy and own collectively, and the increasing privatisation of tenure arrangements, had a negative effect on people's livelihoods, because communities were cut off from access to land and natural resources now located on private land. This included Basarwa communities and many of the rural poor. The Tribal Grazing Land Policy of 1974, and the fencing component of the 1991 New Agricultural Policy, provide evidence for this shift in policy and the increasing privatisation of the commonage.

The Tribal Grazing Land Policy (TGLP) set out guidelines for the implementation of a land tenure reform designed to halt the degradation of land by overgrazing, which had become particularly severe in the populated parts of eastern Botswana. The policy proposed to do this primarily by enclosure. Individuals with many cattle, or groups of smaller stockmen, would be assigned exclusive rights over defined areas of grazing which they would be encouraged to enclose. A major component of the 1991 Agricultural Policy was the proposed fencing of cattle posts on communal grazing lands and converting them to ranches, ostensibly to improve cattle management and production practices. The policy asserts that the TGLP succeeded in demonstrating that fenced ranches are more productive than communal area cattle posts, hence the emphasis on fencing (GoB, 2002). Nevertheless, the TGLP and the 1991 Agricultural Policy aggravated the problem of overgrazing and land inequality in communal areas by allowing ranch owners to continue to use communal areas, thus failing to relieve the

pressure on communal grazing areas (Neme, 1995; GoB, 2002).

In addition to the livestock policies and the impact of ranches on people's security of land tenure already discussed, the loss of land for Basarwa in Ngamiland is largely due to conservation and the establishment of national parks. For instance, the community of Khwai was relocated in order to establish the Moremi Game Reserve. This has resulted in restricting their access to land and natural resources New conservation laws (e.g. the Wildlife Conservation and National Parks Act of 1992) reduced their access to traditional territories. Communities were not (and are still not) allowed to gather wild resources within Moremi Game Reserve. Although there is room for allowing community participation in parks and reserves through provisions made in the National Parks and Game Regulations, it still remains to be seen as to whether there is adequate political and administrative commitment to ensure that communities benefit from this. The Basarwa of Xaxaba and Khwai, for instance, have found themselves trapped into increasingly smaller areas of land that cannot accommodate their traditional livelihood strategies. Their strategies for coping with climatic and ecological variability were dependent on the extensive use of land and natural resources, which in turn required access and control over large areas of land.

In a bid to solve the problem of displaced Basarwa (especially those along the Ghanzi ridge), the Government of Botswana introduced the Remote Area Development Programme. Having been displaced from ancestral and traditional lands as a result of the policies and strategies discussed above, some Basarwa were relocated to the so-called 'service areas' under the RADP resettlement scheme, where they were provided with access to land and services such as water, clinics and schools. In some cases, RADP settlement schemes were developed to make way for wildlife in the newly designated game parks and wildlife reserves (Mazonde, 1994). During the 1980's, the resettlement strategy for RADP was gradually re-interpreted to permanently settle and civilise Basarwa (Wily, 1994). Mazonde (1994) further notes that most remote area dwellers who settle in these betterment schemes experience deterioration in their standard of living. When settlements grow too big, the available game and veld products within reasonable reach rapidly diminish, consequently limiting the number of people who can engage in sustainable livelihood strategies (Saugestad, 1998).

The marginalisation of the Basarwa has resulted in them being made landless and has increased their poverty, given that land is their basic means of production - especially for rural households that depend on agricultural production or the gathering of wild foods and hunting in order to survive (Ratcliffe, 1976; Arntsen *et al*, 1982; Mogwe, 1994; Wily, 1994; Selolwane, 1995).

What Challenges does this Pose for Successful Land and Natural Resource Management?

Similar to most African states, Botswana's management of natural resources historically has shifted from communities to the State as outlined earlier. In most cases this shift occurred during the colonial era but has continued to some extent in the postcolonial era. As a result of the shift in management, contemporary Basarwa are faced with new socio-economic vulnerabilities in addition to ecological uncertainties for which they have few traditional coping strategies to draw on. In the past the Basarwa's coping mechanisms included management strategies based on ecological knowledge that were governed by social mechanisms, such as:

- Seasonal mobility and flexibility in the use of resources;
- Flexibility in group size;
- Detailed knowledge of the local ecological system and appropriate skills to capitalise on this knowledge;
- Generational linkages built upon this knowledge to enable communities to continue with livelihood strategies that are suitable to their local environment; and
- Sharing networks (Madzwamuse & Fabricius, 2004; Madzwamuse, 2005).

According to Rozemeijer and Van der Jagt (2000), Basarwa are in a good position to benefit from the CBNRM initiative because they occupy most of the WMAs. However, the view that WMAs are a blessing for Basarwa communities is somewhat naive, in the sense that it ignores the fact that hunting and gathering is hampered by restricted access to resources outside these designated community areas, which in themselves are substantially

smaller than the traditional hunting and gathering territories of the concerned Basarwa communities. Furthermore, some WMAs - especially those in western Botswana - are resource-poor areas. Hence, the extent to which WMAs are able to sustain and improve local livelihoods is questionable (Arntzen, 2003). Besides, we learn from the Basarwa's traditional management strategies that resource use depends on an extensive use of land to accommodate seasonal variability of resources which may require access to protected areas. Their resilience and ability to adapt is therefore stifled as they do not have access to land, which is essential for their livelihood strategies.

A study on Khwai and Xaxaba however reveals that the Basarwa communities in the Ngamiland District are in a better position compared to their counterparts elsewhere in the country (Madzwamuse, 2005). These communities have the potential to benefit from wildlife-based CBNRM due to the large wildlife numbers in their areas. Although they have access to less land than they had in the past, their loss of land is relatively less than other Basarwa, such as those in the Kgalagadi and Gantsi Districts. They also have better cash income opportunities within the vicinity of their settlements due to the flourishing tourism industry. However, financial capital might be regarded as more unpredictable than natural capital, thus leaving communities more vulnerable.

Despite the above weaknesses, the current environmental governance arena in the country offers an opportunity for the co-management of natural resources. New policies and strategies in Botswana are beginning to recognise the importance of community involvement and participation in the use and management of natural resources. These can be viewed as providing the Basarwa with the opportunity to enter the reorganisation phase. However, in order for CBNRM to facilitate the achievement of sustainable livelihoods, it is important to address land issues and build on traditional/local livelihood strategies. These include key adaptations that enabled the Basarwa to cope with climatic variations and periodic fluctuations in resources as highlighted earlier.

CBNRM in its current form ignores the traditional land use and land management systems, and the need for both flexibility in resource use and mobility as a response mechanism to seasonal fluctuation in resources. Diversity and flexibility are critical for adaptive management and local livelihood strategies, and these are strategies that were employed by the Basarwa. Uncertainty is inevitable for communities that rely directly upon natural resources for their livelihood. CBNRM in its current form, however, fails to take into account temporal fluctuations in livelihood assets, which requires access to different areas in response to seasonal changes.

As stated in Madzwamuse & Fabricius (2004), land remains a major determinant of the natural, physical and financial capital available to the Basarwa. The loss of their traditional lands is the most immediate threat to their resilience, their identity, and their ecological knowledge. CBNRM should ensure the people's access to lands within parks, for example through co-management agreements. These co-management arrangements would require intensive participation of the communities involved as opposed to the passive participation that currently characterises CBNRM in Botswana. It has also been mostly restricted to the peripheral and marginal areas, which are largely poor in resources, except in some Ngamiland areas.

As highlighted in the introduction of this paper, the Basarwa's land rights and security of tenure have been adversely affected by land policies and tenurial regimes that were developed on the basis of practices and traditions of dominant social groups, such as ethnic Tswana and European colonialists. Ng'ong'ola (1997) argues that the failure to acknowledge and accommodate within the law some of the unique and distinctive features of Basarwa, land tenure and land use has been at the core of the problem of marginalisation of these people. CBNRM has done very little to correct the situation, as the participating communities tenure rights remain insecure. Although this position is not unique to the Basarwa, they are more affected than others as their extent of dispossession is at a much larger scale. Arntzen (2003) points out that, if community rights are not secure, then it has implications for the investment and growth strategies that communities can pursue. For example, it is unlikely that the private sector will be interested in joint ventures with the communities if community rights are not secure.

How can Programmes such as CBNRM and others be Adapted to Address the Above Challenges?

Security of tenure, and receiving benefits from natural resources, are critical variables for successful community involvement (Castro & Nielsen, 2001). In the case of the Basarwa, they have to first and foremost win the struggle of being recognised as indigenous peoples by the Government of Botswana, having legitimate claims over their ancestral lands. This has proven to be very difficult as Government officials have become highly sensitive to this issue, to the extent that Khwai's attempt to build a CBNRM initiative around their ethnic identity received very little support (Bolaane, 2001).

It is widely recognised that the Basarwa have excellent land use and natural resource management systems. Documentation of traditional land use and natural resource management systems should serve to inform current CBNRM projects, as it has been widely argued that the secret of the success of CBNRM lies in traditional knowledge and methods of natural resource management (Holling, 1986; Berkes, 1989; Gadgil *et al*, 1993; Berkes & Folke, 1994; Gunderson, 1997; Alcorn & Toledo, 1998).

Seasonal mobility is a coping strategy, a principle and practice that CBNRM needs to draw upon in order to address the need to be flexible with exclusive rights to resources in a designated WMA. Currently, CBNRM focuses on single communities and not on relations between communities; there is thus a danger of ignoring access rights by outsiders and exacerbating conflicts (Niamir-Fuller, 2004). Referring to mobile pastoralists, the above author states that, very often, single communities cannot buffer the effects of dryland variability with their own resources, and livestock may need to move outside the boundaries in drought years. Sullivan (1999) argues that Damara herders can travel substantial distances to gather resources from ancestrally known locations where they consider themselves to have access and usufructory rights, and it is important that these rights are represented and protected in CBNRM. Although the issue of traditional rights was recognised and protected under Concession area leases and CBO leases for community areas, thereby providing access for communities to traditional areas for subsistence resource gathering activities, these rights are not enforced by regulators. Overlapping rights and temporary access rights are often not catered for and receive little or no attention in land tenure policy (Lavinge *et.al,* 2002). CBNRM needs to include processes of negotiated access to resources at a local level as well as existing 'trade arrangements' and overlapping rights within and between communities.

Another important point concerns the roles of local ecological knowledge and local institutions. The sustainability of CBNRM initiatives depends upon the continued strengthening and maintenance of local ecological knowledge and traditional coping strategies of the Basarwa and other local communities. Communities can provide significant knowledge resources, and these resources have been consistently undervalued in the past (Taylor, 2000a; Madzwamuse, 2005). This situation needs to be corrected in order for community-based initiatives to be successful. There are very few (if any) practical examples of incorporating local knowledge into CBNRM.

In several instances, policies adopted in Botswana have effectively (but not explicitly) discriminated against the Basarwa due to their illiteracy, different cultural outlook, poverty, different land use strategies, political disorganisation, and relative inability to access state services. Similar conditions have also occured in other countries of the region, like Namibia. Current policy interventions in both Botswana and Namibia do not adequately address the main causes of Basarwa marginalisation, largely because the problem has been solely perceived as socio-economic instead of addressing questions pertaining to cultural identity, secure access to land and political relations (Suzman, 2001a and b).

In this context it needs to be acknowledged that there are significant numbers of indigenous peoples whose livelihoods are no longer dependent on land and agriculture or other traditional ways of making a living (Plant 1998). Increasingly they will need to find means of ensuring their livelihoods within the market economy. Taylor (2000 and 2002) reveals that, contrary to popular belief about the Basarwa being hunter–gatherers, the Basarwa in the northern sandveld of the Okavango pursue livelihoods in three realms: cash, livestock and wildlife. It is evident that all three are not only intimately interconnected but also that aspects of each of them are essential to the way Basarwa construct their livelihood strategies (ibid). A case study carried out by the author on Khwai and Xaxaba revealed that financial capital and human

capital are increasingly becoming important for the livelihood strategies of the Basarwa communities. Therefore these areas will become increasingly significant to the support of the livelihood strategies of the Basarwa.

The case study highlights that the communities of Khwai and Xaxaba are engaged in diverse livelihood strategies as a risk-spreading strategy (Madzwamuse, 2005). Whereas land remains important, they are exploiting job opportunities in the tourism sector as well as investing in human capital in the form of educating their children to enable them to seek jobs elsewhere (ibid). Taylor (2002) further argues that interventions that try to replace one type of livelihood with another are unlikely to be successful, an example being the initial narrow focus on the commercialisation of wildlife in CBNRM. The challenge therefore is to develop CBNRM programmes that further strengthen the various existing livelihood assets.

The above therefore implies that, although the land issue may be critical, a much more multifaceted approach will be required to address the issue of Basarwa livelihoods. In addition to a lack of land rights, such factors include low literacy levels, extreme poverty and dependency on welfare, weak representation in political structures, and social and political alienation (Saugestad, 1998; Suzman, 2001b; Taylor, 2001; Madzwamuse & Fabricius, 2004). Therefore, as pointed out by Suzman (2001a) and Mbaiwa (2004), for CBNRM to be successful it has to be combined with other empowerment and development strategies, or be broadened to incorporate other resources that the communities are making use of.

Conclusion and Recommendations

The loss of traditional lands remains the largest threat to the Basarwa's resilience, identity and ecological knowledge, which are all important elements of community empowerment. These represent the very basis for and upon which communities can truly participate in the management of natural resources. So far, communities remain passive recipients of benefits; both the responsibility and authority to manage natural resources remain elusive concepts, and access to land and natural resources remains restricted.

Extensive use (in the form of access to large territories of land) is a prerequisite for adaptive management by the Basarwa. In the past, their access to large territories and their adaptive strategies encouraged seasonal mobility. Now, with limited/restricted access to their former territories, they can no longer engage in seasonal mobility. The end result is that they are increasingly dependent upon government handouts for their livelihoods. CBNRM has failed to take this aspect on board.

Community rights are not recognised in the legal system, thus leaving the rights of communities unprotected and the communities powerless in terms of controlling access to natural resources in their areas. For these reasons, communities are struggling to practice adaptive resource management, a practice that this article argues still has a role to play and could make an important contribution to ecosystem and social management if given the opportunity to do so. Again this is an area that remains largely untapped in CBNRM projects.

For CBNRM to reach its potential in Botswana, it needs to undertake the following:

1. CBNRM should be broadened to include parks and reserves as provided for in the regulations. Communities should be given access to and a role in the management of lands and natural resources within parks – for example through co-management agreements. These co-management arrangements would require intensive participation of the communities involved as opposed to the passive participation that currently characterises CBNRM in Botswana.

2. The government should acknowledge the unique issues that the Basarwa face and their land tenure systems, and develop national policies and legislation that reflect them. Failure to do so has resulted in their land rights being unprotected, and has weakened social resilience, which in turn threatens ecological resilience.

3. CBNRM programmes targeting the Basarwa need to deal with the specific needs and issues of these communities. Different strategies are needed, and these will require the various practitioners and government agencies providing support to Basarwa communities to come up with innovative approaches.

4. CBNRM should recognise and incorporate indigenous/traditional knowledge in its

respective related enterprises, such as joint ventures.

5. CBNRM needs to support the diversification of livelihood strategies rather than usurping other livelihood strategies. In order for this to be achieved, CBNRM needs to be implemented within the broader framework of rural development.

6. CBNRM needs to further strengthen the various livelihood assets in order to build the resilience of the communities' livelihood strategies.

7. CBNRM needs to be combined with other empowerment and development strategies, or be broadened to incorporate other resources that the communities are making use of, so as to improve its impacts and success. In the case of the Basarwa, CBNRM programmes need to work hand in hand with development initiatives that tackle the following issues: low literacy levels, lack of land rights, extreme poverty and dependency on welfare, weak representation in political structures, and social and political alienation. This will ensure a much-needed multifaceted approach, which is required in addressing the issue of Basarwa land tenure and livelihood security.

8. CBNRM needs to reflect the spatial nature of resource distribution and the overlapping access rights of various communities.

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Conclusions and Recommendations

By B. Schuster and O.T. Thakadu

The publication on NRM and People has presented a wide range of experiences and case studies related to interactions and linkages between people and natural resources. It presented CBNRM initiatives as an attempt to address the natural resources management challenge brought about through interactions between people and their natural environment. It demonstrated how people impact on natural resources and influence their management, and on the other hand how natural resources influence people's lives and contribute to their livelihoods. The publication was compiled to facilitate sharing information and lessons amongst practitioners, professionals and others interested in the field. This section presents a synthesis of issues and concerns surrounding NRM and People drawn from articles in this publication, and outlines steps that are already taken and/or potential ways towards addressing them. The issues are described below:

1. *Diversification of CBNRM:* While a call to diversify CBNRM beyond wildlife has long been made, we are now beginning to see results. The publication highlighted other CBNRM related non-wildlife based activities, which include the harvesting and marketing of veld products, cultural tourism, initiatives towards rangeland management, and the management of transboundary water resources and fisheries. A number of CBOs have been established that are mainly based on veld products, such as Kgetsi ya Tsie, Gwezootsha Community Trust, Luzwe Development Trust, Bokamoso Women's Co-operative and Teemacane Community Development Trust. These CBOs collect, process and market various veld products, including mophane worms (*Imbrasia belina*), morula (*Sclerocarya* sp), thatching grass, Devils Claw (*Harpagophytum procumbens)*, mokola palms (*Hyphaene petersiana*) and dye resources (*Berchemia* sp and *Euclea* sp) for craft production, herbal teas and wild honey. While the revenues generated through the harvesting and marketing of veld products and cultural tourism activities appear to be small compared to mainstream wildlife-based CBNRM, they provide important benefits that filter directly down to the household level. In wildlife-related CBNRM initiatives, concerns have been raised that only a few people benefit. With veld products there is a direct link between individuals' input and the level of benefits, and these benefits are directly controlled by individuals. Policy interventions should therefore be seen to encourage this diversification. There should be efforts towards adding value to veld products, improving access to regional and international markets, and developing new products to increase the returns to communities.

2. *Natural resources management and monitoring by local communities*: One of the key notions driving CBNRM is that local people who live with the natural resources are best placed to be their custodians. By realising this, Government initiated community involvement in natural resources management by granting user rights to local communities. It has been argued that these user rights are limited, as they do not confer ownership. This has constrained the development of a sense of responsibility amongst communities to manage natural resources proactively. However, there are notable attempts by local communities towards resource monitoring as evidenced through the establishment of community escort guides (CEG) in most CBOs involved in wildlife-based CBNRM. The CEGs' patrols within community areas are undertaken to control poaching and ensure compliance with regulations. Though this community monitoring by CEGs was initially focused on law enforcement, there are recent efforts to introduce a holistic and systematic natural resources monitoring system with active community involvement. The initiative, Management Oriented Monitoring System (MOMS), was introduced by DWNP in 2005 and is piloted in three communities. Even though the current focus is on wildlife resources, there are plans to extend the monitoring system to cover other resources such as forest resources, veld products and meteorological

features like rainfall. These collaborative efforts will go a long way towards contributing to the conservation of natural resources, and should be recognised by authorities in giving local communities a platform to be actively involved in setting wildlife quotas and veld product harvesting limits.

3. *Recognition of community based structures at a high political decision-making level*: The ERP article has demonstrated the potential for community representation and involvement in a regional policy-making structure, the OKACOM. This approach should be extended to similar institutions, both on a regional and national level. At national and District levels, organs such as the National and District CBNRM Fora as well as the Basin-wide Forum should be represented in decision-making bodies dealing with natural resources management and rural development. Regionally, the Regional CBNRM Forum and other regional initiatives should be recognised by and represented in SADC. Recognition of community based structures at a high political decision making level will contribute to a concerted effort and genuine collaboration in natural resources management at all levels. This will also facilitate the recognition and inclusion of traditional knowledge in the decision-making process.

4. *Stakeholder involvement at project design phase*: The importance of stakeholder involvement at the project design phase was underlined through the experience of the ERP project. For effective programme implementation, various stakeholders need to have a shared common interest, vision and focus, and should address immediate needs. The Basarwa response to the implementation of CBNRM demonstrates how a well-intended programme can take an unexpected twist from envisaged results. This will usually happen when stakeholders are not consulted at the project development phase. The design of the CBNRM programme in Botswana disregarded what Basarwa considered as their cultural markers (hunting and game meat consumption). With consultations during project planning, this cultural characteristic and its implications could have been noticed and addressed in the design of the programme to avert the scenario presented in the article. While CBNRM has been hailed for having contributed towards positive attitude change in participating communities, the Basarwa example represents a unique case indicating that CBNRM implementation cannot be a "one size fits all" approach. It is therefore critical to take all stakeholders' views, specific needs and special attributes into consideration at a very early project planning stage.

5. *Contribution of natural resources management to rural livelihoods*: One of the tenets of CBNRM is that it will contribute to poverty alleviation and the improvement of rural livelihoods, thereby providing an incentive for the sustainable management of natural resources. While material and non-material benefits of CBNRM have been noted, there are still concerns that they are mostly gained by Trust employees, Board members and locally influential people. Impact at the grass roots (individual) level remains too small and insignificant, thereby compromising the potential to contribute to poverty alleviation and local livelihoods. There is an urgent need therefore to develop monitoring indicators to measure and prove the achievements and trends in CBNRM regarding poverty alleviation in rural communities. With the view that the level of success of CBNRM projects is directly proportional to the degree of attitude change towards appreciating natural resources conservation, there is a risk of loosing the conservation incentive if benefits do not filter broadly down to the household level.

6. *CBNRM support and facilitation*: CBNRM has been described as a slow and evolutionary process requiring long-term facilitation and support from support agencies and individuals. In Botswana, external support is fragmented and shows gaps with regard to business skills and entrepreneurship. There is therefore a need for CBOs to forge partnerships with individuals and companies that can initiate and run businesses efficiently. An enabling policy environment that would give overall guidance for programme implementation is long overdue; this leaves room for ambiguity and uncertainty on the future of CBNRM.

7. *CBNRM and the land issue*: Security of tenure has been recognised as critical for successful CBNRM programmes. Evidence from Basarwa communities demonstrates that the CBNRM programme has ignored

the specific need of these communities to access large territories of land. The limited access to land leaves Basarwa communities struggling to practice traditional adaptive resource management based on seasonal mobility. These practices are a central marker of their cultural identity and ecological knowledge, and provided a critical basis for their livelihood security. National policies have failed to recognise the specific aspects of the land tenure system, and have drastically altered the situation for Basarwa communities that lost access to their traditional territories and resources within them. This needs to be corrected in order to reduce the dependence of Basarwa communities on government handouts. Creating an enabling environment for overlapping user rights of land by different user groups needs to be incorporated in the legislative and policy framework.

While there may not be ready-made answers and a 'one-size fits all' strategy towards resolving the complexities surrounding people-natural resource interactions, CBNRM has shown a ray of hope towards meeting this challenge. In briefly synthesising and high-lighting issues noted above, this publication signals to the CBNRM implementing agencies that new issues, ideas and challenges will always evolve, highlighting the need to adapt to meet the current challenges.

Publications under the CBNRM Occasional Papers:

1. T. Gujadhur 2000. Organisations and their approaches in Community Based Natural Resources Management in Botswana, Namibia, Zambia and Zimbabwe.
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