



## **Review of institutional and legal arrangements for community-based management of rangelands in Botswana**



Report prepared for the Indigenous Vegetation Project of the Ministry  
of Agriculture and UNDP-Botswana (IVPBOT04/020)

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The Indigenous Vegetation Project is a five-year project, ending in 2007. It is funded by the Global Environment Facility and the Botswana Government, and implemented through the Ministry of Agriculture. It is a pilot project aimed at developing models for community-driven management and rehabilitation of degraded rangelands, for replication throughout the arid and semi-arid zones of Africa

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## **Abbreviations**

AA	Appropriate Authority
AMA	Agricultural Management Association
APRU	Animal Production Research Unit
ARCA	Agricultural Resources Conservation Act
BRIMP	Botswana Rangeland Inventory and Monitoring
CAP	Community Action Plans
CAR	Centre for Applied Research
CAMPFIRE	Communal Area Management Programme for Indigenous Resources
BOCOBONET	Botswana Community-Based Organisations Network
CB	Community-based
CBO	Community-Based Organisation
CBRD	Community-Based Rural Development
CBNRM	Community-Based natural resource Management
CEDA	Citizen Economic Development Agency
CHA	Controlled Hunting Area
CITES	Convention on International Trade in Endangered Species
CPR	Common Property Resources/ Regime
DDP	District development Plan
DLUPU	District Land Use Planning Unit
DWNP	Department of Wildlife and National Parks
EMA	Environmental Management Act
FIRM	Forum for Integrated resource Management
GA	Grazing Association
GLMD	Grazing Land Management Demonstration
GS	Grazing schemes
IFAD	International Fund for Agricultural Development
IVP	Indigenous Vegetation Programme
LDP	Livestock Development Project
MOA	Ministry of Agriculture
MFDP	Ministry of Finance and Development Planning
NDP	National Development Plan
NACSO	Namibian Council of Support Organisations
NGO	Non-Government Organisation
NPAD	National Policy on Agricultural Development
PRS	Poverty Reduction Strategy
RALE	Representative, Accountable and Legal Entity
RDC	Rural District Council
RMA	Range Management Association
SWOT	Strength, Weakness, Opportunity and Threat
TCA	Tourism Concession Area
TGLP	Tribal Grazing land Policy
ToR	Terms of Reference
UNCBD	UN Convention on Biodiversity
UNCCD	UN Convention to Combat Desertification
UNDP	United Nations Development Programme
VADP	Village Area Development Programme
VDC	Village Development Committee
WAB	Water Apportionment Board
WMA	Wildlife Management Area

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As usual, the authors remain responsible for errors and misinterpretations in the report. We hope to have minimised these.

It is our sincere wish that the report will stimulate community-based rangeland management in Botswana and the other two IVP pilot countries (Kenya and Mali).

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## **EXECUTIVE SUMMARY**

This study investigated the legal, policy and institutional aspects of community-based rangeland management. The Centre for Applied Research carried out the study for the Indigenous Vegetation Project, Botswana Programme.

The main findings and recommendations are summarised in this executive summary.

### *Communal rangelands (chapter 2)*

Botswana's communal rangelands can be characterised as shrinking in size, having more livestock, particularly goats and donkeys, and less wildlife, more barren land and bush encroachment, decline in biodiversity and less management. Communal rangelands have shrunk due to the establishment of fenced ranches (*de jure* private) and exclusive use of rangelands with boreholes (*de-facto* private). It will no longer be possible to establish community-based rangeland management in these areas, and therefore IVP will only apply to the remaining communal areas, which are not yet dominated by individual boreholes.

Management failure has occurred in communal rangelands due to weak instruments of the responsible institutions (Land Board, Agricultural Resources Board and Water Apportionment Board) and non-implementations of the few available instruments. This has led to open access and contributed to rangeland degradation. Therefore, the IVP attempt to re-establish common property management is opportune, but IVP also needs to address dual grazing rights, where ranchers continue to have access to communal rangelands

### *Livestock, urbanisation and livelihoods*

The role of livestock in rural livelihoods and economy has changed significantly, and this needs to be taken into account in IVP activities. IVP cannot exclusively focus on the livestock sector, and must look at other sources of rural livelihoods in order to understand livestock management strategies.

Urbanisation and development of the non-agricultural sector offer markets and new opportunities for rangelands uses, particularly in communal rangelands close to urban areas and major roads. Such opportunities need to be analysed and exploited through IVP.

### *Policies (chapter 3)*

Until now, IVP has hardly dealt with issues related to policies and programmes. Being located in the Ministry of Agriculture, it is 'isolated' from community-oriented approaches towards rural development and CBNRM. It faces strong preference of the Ministry of Agriculture for land privatisation. If IVP is to succeed and sustain itself beyond the initial project period, it will have to fully utilise existing community based resource management options, especially in rural development and wildlife/ veld products. Moreover, IVP should actively lobby for recognition of community rights for rangelands management in evolving policies such as the Land Policy and the CBNRM policy.

There has been a strong trend towards community-based development and management in rural development, wildlife and tourism. The trend started in 1986 with the Wildlife Conservation Policy, and accelerated in the second half of the 1990s. In contrast, agricultural policies seem to despair about the potential of communal resource management, and prefer resource privatisation. Comparative research needs to be done into the benefits and productivity of ranches and communal, cattle post type of grazing systems.

There are serious policy gaps in the field of veld products, rangelands resources, water resources and wood resources.



Several CB support programmes and measures exist or are being developed that can be used by IVP project. Examples include:

- The establishment of CB liaison officers in District Councils (Rural Development strategy);
- Community Action Plans (CAP in revised Rural Development Policy);
- Community zones in Parks (2000 Parks and Reserve Regulations);
- Community ranches (NADP 1991) and game ranches (2002);
- Community grazing zones (2002 Rural Development Policy);
- Reform of extension work;
- CBNRM support unit and integrated natural resource committee (draft CBNRM policy);
- Community veld products permits (draft CBNRM policy)
- Community woodlands and fishery zones (draft CBNRM policy);
- Specific recommendations, including restoration of degraded land, listed in the new Revised Rural Development Policy.

The spatial unit of community-based (CB) management is a concern, particularly when the approach is widened to embrace most natural resources. At present, CB management of wildlife and tourism concessions is based on Controlled Hunting Areas. It is unlikely that CHAs are the relevant spatial classification for rangelands and veld products and wood resources. IVP should pilot with the exploration of suitable spatial units for CB rangeland management.

There is lack of integration between policies, particularly in two areas. Agricultural policies tend to be separate from rural development strategy and policy. Moreover, resource policies are not well linked into rural development policies. As a result, it would be surprising if the most suitable activity and form of resource use is promoted through policies. There is need for integrated policy implementation to correct this situation.

#### *Legislation (chapter 4)*

Regulatory mechanisms of communal rangelands are fragmented and inadequate. The lack of a composite law on the management and conservation of (community) grazing rangelands is a general weakness. In communal rangelands, grazing resources are hardly managed and protected. Veld products are only protected and managed when as far as they are declared agricultural resources. Wood resources that are not declared agricultural resources are not at all protected. Where rangeland resources are managed and protected, the measures are often not implemented or enforced (e.g. orders under the Agricultural Resources Conservation Act or ARCA), further limiting management of rangeland resources. As a result of both factors, most rangeland resources are exposed to open access.

The various laws are not sufficiently specific towards defining rangelands, rangeland resources and communal rangelands. The nature and content of resource rights and responsibilities are often not detailed, and community rights are not made explicit. The forthcoming review of the ARCA should clarify which resources are covered (ensuring that there is no resource management gap) and what entitlements (including nature and content of rights) and responsibilities communities have. At the moment, communities appear to have opportunities for acquiring community resource rights under existing laws. Monitoring and enforcement of resource rights are problematic due, among others, to capacity problems of the institutions in charge.

Dual grazing rights still exist to-date, even though they discourage sustainable rangeland utilisation (both in communal rangelands and on ranches). Community-based rangeland management offers opportunities to resolve dual grazing right problems.

Government institutions dominate rangeland management, in particular the Land Board, the Agricultural Resources Board, the Department of Wildlife and National Parks and the Water Apportionment Board. These institutions face capacity constraints, and coordination problems. In

the absence of the forthcoming Environmental Management Act, the NCSA cannot assume its potential role of coordinating the use and conservation of rangeland resources. There is need for strengthening coordination and the management capacity of the lead government institutions.

The role of non-government institutions has been growing, but remains limited to-date. There is need to expand the role of these institutions, particularly in association with community-based wildlife management projects. The formation of community-based management institutions (Trusts and/or AMAs) could relieve the burden of government institutions such as the LB and ARB. Moreover, NGOs could assist with community support. Finally, joint ventures with the private sector would lead to greater participation of this sector in communal rangeland use and management. This would benefit communities and private companies alike.

#### *Local grazing management schemes (chapter 5.2)*

The nature and scope of livestock projects has significantly changed in time in (southern) Africa. In most countries, policy focus has switched from ranching towards pastoral associations and integrated natural resource management. However in Botswana, ranching remained the core of livestock policies. Most local grazing schemes in southern Africa have adopted the communal ranch model with limited success. The unfenced livestock approach of Lesotho appears to be most successful.

Most early grazing management interventions have had limited success due to rigid grazing models that were pursued, institutional weaknesses, government domination and lack of integration into rural development planning. Reasons for failure include:

- Use of a prescriptive, top-down approach derived from the commercial sector;
- Rangeland degradation is not perceived as a priority by communities;
- Failure to provide benefits to communities;
- Extension and donor support have disguised the true costs of the schemes;
- Community conflicts and limited capabilities;
- Scarcity of communal rangelands made it difficult to set aside areas for exclusive schemes; and
- Reluctance to adopt new management strategies.

Fenced grazing schemes will probably only succeed when they are initiated by communities themselves, and when communities articulate their own management plan (with advice from extension workers). This requires a shift in policy and project emphasis towards supporting and empowering local communities.

The history of grazing schemes and interventions suggest that IVP need to build the capacity and sustainability of CBOs, encourage partnerships with modified roles for stakeholders, in particular government, flexible resource rights and built-in drought coping measures, a multi-disciplinary approach and integration of livestock activities in rural development programmes and planning.

#### *Community-based natural resource management (chapter 5.3)*

CBNRM projects emerged in the late 1980s, and yet they have rapidly spread to many countries and villages. This reflects appreciation of communities about the development opportunities that this approach offers them. The resource scope of CBNRM has gradually expanded beyond wildlife, and now covers fisheries, wood, veld products and water. Grazing resources are only included in Namibia (on paper).

Most CBNRM projects do not yet make a large, direct, impact on rural livelihoods. Non-material benefits are important and substantial. Increasing benefits and a fair benefit distribution are critical to the long-term success of community-based projects. Namibia has a benefit sharing plan requirement for communities, and Zimbabwe uses a benefit sharing formula. Joint ventures with companies enhance the economic benefits, but communities need support to negotiate a reasonable deal.

There are positive indications that CBNRM contributes towards resource conservation, but the current programmes fall short of common property management.

Communities will need long term, sustained support that needs to be conditional on progress made. Namibia's FIRM approach is a good example of providing coordinated support that focuses on community needs and priorities.

While the approach may be similar at a general level, CBNRM activities need to be based on local resource endowments and needs. It is therefore good that IVP has support staff at each site to be sensitive to inter site differences to monitor needs and resources.

#### *Recommendations regarding community-based rangeland management models*

IVP-communities themselves prioritise the type of resources for community based management and explain their preferences.

IVP sites should:

- not primarily focus on stock limitations and improving rangeland conditions;
- consider other measures such as drift fences for the community-controlled grazing areas;
- design and implement a grazing management plan by the CBO. It is recommended that communities discuss the merits of tradable grazing licenses.

Benefit generation should have a higher priority in IVP. The following areas are recommended for discussion with the IVP communities:

1. Increase forage by fodder projects, use of non-ploughed fields;
2. Engage in marketing facilitation;
3. Assist with veterinary services;
4. Tradable grazing licenses and grazing management fees; and
5. Agro-processing such as dairy and biltong.

There is need to focus on the constraints and opportunities of the small stock sector. Better use of donkeys, exploitation of veld products, use and management of wildlife resources and conflict resolution can also increase economic efficiency, in particular between livestock and crops and between wildlife and livestock. These issues also need to be discussed within IVP communities.

IVP communities should consider appropriate forms of joint ventures with companies and individual farmers.

IVP communities need to develop a benefit generation and distribution scheme, e.g. as attachment to the CAP.

To stimulate active participation in the CB rangeland management, it is recommended to establish a link between the level of inputs of individuals and their benefits, while safeguarding the community nature of the approach.

It is recommended that the IVP sites pilot with relevant boundaries, for example adopting the CHA- boundaries and adopting the Namibian conservancy model of boundary negotiations with neighbouring villages.

A shared appreciation of the nature and goals of community-based rangeland management is needed. Support staff needs to familiarise themselves with the community's motivation towards community-based rangeland management

IVP needs to pioneer with innovative joint ventures such as ostrich breeding and livestock marketing.

IVP needs to investigate the merits of community-based rangeland management as an alternative to rangeland privatisation.

*Recommendation regarding legislative and institutional aspects of community-based rangeland management*

*Community-based institutions*

Community-based rangeland management needs to be driven by a Representative, Accountable Legal Entity (RALE).

Given the capacity constraints at the local level, it is generally an advantage to utilise existing community-based organisations (e.g. wildlife Trusts).

The study concluded that Trusts and Agricultural Management Associations would be the most suitable organisational models for community-based rangeland management.

IVP communities need to transform interim Trusts into permanent ones. The Trusts requires a constitution, management plan, Board of Trustees, and transparent operational procedures. Moreover, Trusts need to develop bylaws and apply for resource rights.

It is recommended that a pilot will be carried out with a CBO as an AMA.

At community level, CBOs should:

- be established under the legislation in order to give them legal existence;
- develop a Constitution to govern their operations;
- be encouraged to apply for the relevant resource rights and application of resource management rights;
- be encouraged to enter into contracts and joint ventures with third parties;
- develop bylaws for rangeland management to fill gaps and supplement national legislation;
- establish a monitoring and enforcement/ sanction system to ensure effective management;
- be empowered by law to borrow money;
- be accountable to members and develop a conflict resolution mechanism;
- be subjected to external supervision/monitoring; and
- network with similar organisations.

*Other organisations*

Rangeland management institutions such as LB, ARB and WAB need to be adequately staffed, trained and equipped with sufficient powers.

*Legislation*

Currently, there is no specific legislation that deals with the conservation, management and protection of rangelands or IVP projects. Rather, legislation on rangelands is fragmented and uncoordinated. In order to make IVP projects sustainable beyond the projected five-year period, they require strong legislative environment or basis. Existing legislative framework offers opportunities for the management of rangeland resources and it is important for IVP communities to better utilise such opportunities.

Accordingly, it is recommended that the IVP project should promote:

- Approval and adoption of a framework Environmental Management Act or similar legislative framework setting, inter alia, standards for the protection and management of the country's natural resources, including rangeland resources;
- The legislation should provide a clear definition and typology of rangeland resources;
- Clear provision should be made in the legislation on community rights over rangelands resources such as user rights, management rights and development rights including the nature and content of such rights;
- Provision should be made in the law clearly specifying responsibilities of communities over rangeland and rangelands resources;
- Further, the question of tenure over rangeland resources should be addressed in the relation. Most of the legislation does not specifically address the period over which the holder of a right with respect to rangeland has to enjoy that right apart from the usual 99 year-lease period over communal lands under the Tribal Land Act;
- Legislation should recognise the importance of joint ventures between the community and support organisations (NGOs) and other CBOs in the management of rangelands;
- Clear regulatory measures should be made permitting communities to transfer rights of use and management of rangelands through subleases to third parties subject to clear conditions of training and investment in the projects;
- Most importantly, legislation should regulate the question of dual grazing rights. This is an old problem which the law should clarify once and for all;
- Effective enforcement measures should be made with regard to rangelands legislation to ensure that they benefit communities in the protection of their rights.
- While awaiting adoption of specific legislation with the above-mentioned protective principles, regulation should be adopted under the existing legislation to be used as interim regulatory mechanisms for the protection and management of rangelands.

It is recommended that IVP communities consider the following options:

- Apply for community land and water rights under the Tribal Land Act and the Water Act.
- Develop the Community Action Plans (CAP) under the auspices of the Rural Development Strategy;
- Develop a poverty reduction component within the CAP as part of the Poverty Reduction Strategy;
- Apply for community zones in nearby National Parks and develop a local Parks and People Strategy;
- Apply for a community ranch under the NAPD as an *additional* piece of land an opportunity for specialised livestock production;
- Request the ARB to declare stock and conservation orders where they seem necessary. This could be part of a community resource management plan;
- Request the LB to impose livestock ceiling per member, where deemed relevant;

It is recommended that Namibia's extension and support approach (called Forum for Integrated Resource Management) be piloted at the IVP sites.

## 1 INTRODUCTION

### 1.1 Terms of reference and project approach

The consultancy aims to review models of community-based management rangeland management and to recommend institutional and legal arrangements for community rangeland management. The tasks of the study were to:

- 1 Analyse previous and current models for community-based management of rangeland resources in Botswana and southern/eastern Africa;
- 2 Recommend the key capacities, powers and legal status needed by CBOs to effectively manage their rangelands;
- 3 Investigate the policy and legislative environment governing the operation of community-based management of rangeland resources; and
- 4 Make conclusions and recommendations for institutional and legal arrangements for community-based management of rangelands.

The study combined the livelihood and sustainable development approaches towards the analysis of rangeland uses and management (see e. g. Ellis, 2000; Ashley and Hussein, 2000; Munasinghe, 1993 and Serageldin, 1993). The approach was used at the micro (families and communities) and macro (e.g. policy, legislation, institutional support structure) levels. A checklist was developed for the literature review and as guidance for interviews. A SWOT analysis was used to review institutional and legal aspects of different management approaches. The study was based on *secondary* data, i.e. mostly literature, statistics and interviews with some resource persons.

In essence, three approaches towards rangeland management can be distinguished (Ngaido et al, 2002): state-management, private management and common property (CPR) rangeland management. Open access is the failure of any of the three management approaches, but it is most commonly associated with a breakdown of traditional common property resource management. This also applies to Botswana<sup>1</sup>. In Botswana, all three approaches are found, but private rangeland management is most rapidly increasing, while common property regimes have evolved in 'open access' rangelands and in de-facto private rangelands through private borehole ownership (Arntzen, 1989).

The Centre for Applied Research carried out the project during the period March-May 2004. The client was the Ministry of Agriculture, IVP project, and funding was provided under the IVP project.

Regular meetings were held with the relevant IVP, MoA and UNDP staff. Moreover, the study made contributions to the IVP input into the workshop to discuss the draft CBNRM policy, organised by DWNP.

The report has the following structure:

- Chapter 1: terms of reference and introduction of IVP in Botswana;
- Chapter 2: discussion of communal rangeland in Botswana

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<sup>1</sup> Open access also exists in a few State land areas (e.g. Makgadikgadi pans).

- Chapter 3: policies relevant to rangeland use and management;
- Chapter 4: legislation and institutions relevant to rangeland use and management;
- Chapter 5: southern African experiences with community-based rangeland management models and with CBNRM;
- Chapter 6: conclusions and recommendations.

## **1.2 The Indigenous Vegetation Project (IVP)**

The indigenous vegetation project is a regional pilot project that is carried out in three semi-arid African countries (Botswana, Kenya and Mali). The project has a total of seven sites in Mali (2), Kenya (2) and Botswana (3).

According to the 2003 IVP Annual Report, the objective of the project is to develop models for the conservation of biodiversity and rehabilitation of degraded rangelands, and to develop sustainable management systems using indigenous knowledge. In the Botswana inception report, the project aims is 'empowering communities to reverse environmental degradation and restore biodiversity in the areas in which they live, so as to improve their livelihoods' (IVP, 2002). The project will assist the countries with meeting their obligations under the UNCCD and UNCBD. The implicit assumptions of the project are that:

- Environmental degradation and loss of biodiversity are widespread;
- Community empowerment will be able to reverse these trends and improve livelihoods.

The IVP is a five-year project ending in 2007 and is funded by the Global Environment Facility and in-kind contributions from the three project countries. The three countries will benefit from sharing experiences and lessons learnt.

The main components are:

- Establishment and strengthening of appropriate indigenous management systems;
- Establishment of a regional arid zone bio data base;
- Rehabilitation of indigenous vegetation and degraded lands;
- Improved livestock production and marketing, and provision of alternative livelihoods;
- Technology transfer, training and regional comparative learning; and
- Targeted, applied, research.

The project started in Botswana in January 2003. After a fact-finding and consultative mission, three field sites were selected with a total of 15 villages.

Details of the sites and IVP-activities in Botswana to-date are given in appendix 1.

## **1.3 Definitions of key concepts**

It is important to describe the meaning of key concepts, which are frequently used in this report.

### *Rangelands*

Rangelands are lands that supply forage or vegetation for grazing and browsing by livestock and wild animals and for use by human beings. Rangelands can be sub-divided into three categories:

- Communal rangelands are *de-facto and de-jure* accessible to the entire community or those who have been granted such rights by communities;
- Private rangelands are *de-facto* or *de-jure* owned or controlled by individuals;
- State rangelands are controlled by the State.

### *Natural resources*

Natural resources are usually divided into biological (renewable) and non-biological (non-renewable) resources. Rangeland resources are here considered as a sub-set of biological natural resources. The consultancy has used the definition of the Convention on Biodiversity which refers to biological resources as “*genetic resources, organisms or parts thereof, populations or any other biotic components of ecosystems with actual or potential use or value for humanity.*” Thus rangeland resources include grazing, shrubs and useful plants<sup>2</sup>.

In Botswana, two other terms are frequently used with reference to rangelands, i.e. *agricultural resources* and *veld products*. The former came into existence with the 1974 Agricultural Resources Conservation Act; the latter is widely used in southern Africa in reference to useful products from grass, plants and trees. Veld products are defined in the National Parks and Game Reserves Regulations of 2000 as ‘*non-domesticated, vegetative biological resources that may be used for construction, medical, food and cultural activities*’. While both terms are used in the report, it is recommended to drop the official use of these terms, as they are poorly understood outside Botswana (agricultural resource) and southern Africa (both terms). Moreover, the term agricultural resource is confusing in that it does not necessarily refer to agricultural use.

### *Resource management*

Rangeland resource management aims to allocate and control the use of rangeland resources in such a way that their environmental sustainability is secured, the resources are efficiently used and the benefits fairly distributed.

*Open access* to rangeland resources occurs when resources are effectively unmanaged, and resource access and use are unrestricted and uncontrolled. *Common property resource (CPR) management* refers to a management system where a communal resource is effectively managed using effective management structures and procedures. CPR structures and procedures can be established through community-based institutions and procedures. They can also be established through other channels such as the Land Boards or Resource Boards (provided the management is effective).

Community-based natural resource management (CBNRM) is a development approach that aims to reduce rural poverty by generating local economic, social and environmental benefits through empowering communities to utilise and manage local natural resources. With respect to rangelands, CBNRM implies that communities will gain control over local

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<sup>2</sup> Strictly speaking wildlife resources are part of rangeland resources. This study excludes wildlife from rangeland resources as wildlife utilisation and management is regulated in many existing policies and laws, and the port-folio responsibility of a specific department (DWNP).



grazing and woody resources as well as veld products through the acquisition of user, management and development rights.

### *Resource rights*

The exact nature of resource rights is often confused. Therefore, it is important to make a distinction between various types of resource rights.

- Resource ownership right gives an individual or institution resource ownership, and hence absolute control. The owner may allocate user, management and development rights to other individuals or institutions. In Botswana, natural resources are normally owned by the State (e.g. wildlife, water, veldproducts) or Tribe (held in Trust by the Land Boards) but user and development rights may be allocated to individuals, communities or companies.
- Resource user right refer to the right to use rangeland and its resources;
- Resource management right is the right to manage rangeland and its resources;
- 'Resource development right' means the right to carry out works or operations on the land or the making of any material change in the use of communal grazing rangeland.

Dual grazing rights refer to the right of ranchers to graze livestock on both communal land and privately owned land.

### *Livelihoods*

Given the widespread poverty, most rural households aim to improve (the security of) their livelihoods. According to Ellis (2000), livelihoods comprise the assets (natural, physical, financial, human and social capital), the activities, and the access to these (mediated by institutions and social relations) (stores, resources, claims and access) and activities that together determine the living gained by the individual or household.

### *Institutions*

Institutions mean, for the purpose of rangeland management, a body or organisation responsible for the management and protection of rangelands and resources situated on rangelands. Statutory institutions are established for a specific purpose by law; non-statutory institutions operate without specific legal backing.

The latest draft of the CBNRM policy (April 2004) describes a community-based organisation (CBO) as an entity formed by a community, groups of communities or groups within communities that are involved in the management of natural resources, to represent the community's interests and implement management decisions. Usually, all residents are members of the CBO.

## **2 COMMUNAL RANGELANDS IN BOTSWANA**

This chapter discusses the nature, use and management of communal rangelands in Botswana. It also captures changes and dynamics within communal rangelands as well as the changing context of rangeland utilisation.

### **2.1 Introduction**

Botswana has traditionally a large pool of communal areas unlike most neighbouring countries. Freehold areas are small, and most State Land is designated as National Park, Game or Forest Reserve. A few pockets of State Land are used for livestock production (Nata and Molopo ranches). Due to the prominence of Tribal communal rangelands, their use, productivity and management is of great importance to the country. Their nature and use have changed dramatically due to several factors that are briefly discussed below.

Access to water is critical to livestock farming. Prior to borehole technology, livestock was confined to eastern Botswana, where sufficient seasonal water sources were available. The introduction of boreholes facilitated the expansion of the livestock sector throughout the country. Livestock expansion started in the 1940s and continued until the 1980s, when most parts of the country were covered (1989).

As elsewhere in Africa (Wiley, not dated), the role of government has grown in time. Government institutions have taken over most roles of the traditional authorities (see below). Changes in land tenure have led to the introduction of leasehold areas within Tribal land. Leasehold farms were established under the Tribal Grazing Land Policy (TGLP 1975) and under the fencing component of the 1991 National Policy on Agricultural Development (NADP). Most ranches are individually owned and are inaccessible for non-owners<sup>3</sup>. As a result, the size of communal grazing decreased, and the pressure on such areas increased. It is therefore not surprising that rangeland conditions in communal rangelands are often poor due to congestion.

Individual ownership of water points has also strengthened individual control over large parts of communal areas (de-facto privatisation).

Land use planning became strong and effective during the 1980s with the introduction of Land Boards and District Land Use Planning Units (DLUPU). Newly introduced land use zones included the leasehold grazing areas (commercial farms) and wildlife management areas (WMAs), where wildlife utilisation is given priority, and no boreholes can be drilled for livestock. Most WMAs are found in western Botswana with an extremely low population density, and often close to National Parks and Game Reserves and along wildlife migratory routes.

After Independence in 1966, institutional power shifted from traditional to modern institutions such as Land Boards (1968), the Agricultural Resources Board (ARB 1974) and the Water Apportionment Board (WAB 1968). While these modern institutions were successful in resource allocation, they largely failed to manage rangelands. As a result, traditional common property management of communal rangeland resources was

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<sup>3</sup> In contrast, ranch owners retain access to communal areas, and therefore enjoy so-called dual grazing rights. Dual grazing rights undermine rangeland management, but the issue has not been resolved to-date.

replaced by de-facto open access and free for all, exposing these resources to the perils of unchecked over-use. In practice, the traditional borehole spacing rule that water points should be 8 km apart became the most effective management tool in communal rangelands, although it did not directly control livestock numbers per borehole and grazing pressure. The rule has been adjusted several times to create space for new boreholes, and consequently its management function has been weakened in the process.

In its endeavour to boost economic growth, government offers substantial support to the livestock sector, as it was considered to be the most viable indigenous rural sector. The support has accelerated livestock expansion, but contributed to underdevelopment of the wildlife and tourism sectors. While the current policy intention is to decrease and target support better, most support measures continue until today. Concern exists that livestock support has attracted 'non-serious' livestock farmers, contributing to the sector's failure to increase production and productivity (cf. Centre for Applied Research 2001).

Botswana's macro-economic transformation led by the mining sector and urbanisation, has led to a decrease in the macro-economic importance of the agricultural sector. Non-agricultural formal employment has increased dramatically and has become a major livelihood source for rural households. A Survey carried out for the Review of the Rural Development Policy found that livestock products had lost a lot of their importance for rural livelihoods (Figure 2.1). Obviously, households allocate their resources to the livestock sector after consideration of the alternatives (opportunity costs).

*Figure 2.1: Survey results of the RDP review for livestock*

- 67.9% of the survey households own livestock.
- The livelihood benefits are augmented by the mafisa system: 11.2% of the households benefit from mafisa in cattle, while 5.5% mafisa out some cattle.
- Livestock products are not very important for rural livelihood. For 55.1% of the interviewed households it is not important at all. For 38.7%, livestock products provide up to a quarter of their income. 64.9% of the households do not gain income from livestock sales, while 24.9% derives up to a quarter of its income from livestock sales. The 'reach' of livestock benefits is much more limited than formal employment and crop production.
- Improvements in livestock production have strengthened the ability of 34.6 % of the survey households to meet their livelihoods.
- For two-third of the interviewed households livestock is an important strategy to meet their livelihoods. There is little regional variation (North lowest with 59.1%)

Source: BIDPA, 2002.

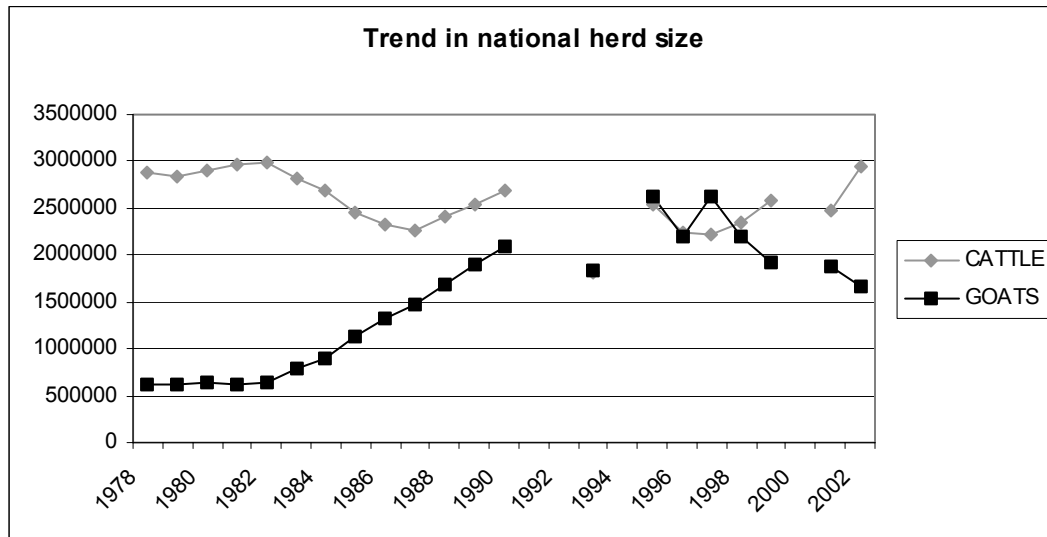
As a result of the economic transformation, the livestock sector faces more competition to attract capital and labour, and is no longer the single most profitable investment opportunity. During the 1990s, tourism has emerged as an alternative in wildlife rich areas. While the economic benefits of tourism have grown substantially, local benefits are still limited. Community-based wildlife utilisation and tourism projects offer opportunities for rural diversification and for increased local material and non-material benefits (Arntzen et al, 2003).

**Figure 2.2: Major changes in the context of rangeland use and management**

<p><i>The development of the non-agricultural sector has generally reduced the dependency of households on rangelands and improved livelihoods.</i></p> <p>Concerns: government dependency, long term sustainability, rising opportunity costs of livestock production; growing inequalities in communities and greater difficulties in reaching management consensus</p> <p>Opportunities: new markets for livestock products, particularly for communal areas close to towns and cities (cf. Mortimore and Tiffen for Kenya, 1993). Sources of investment in livestock sector.</p>
<p><i>Growing urbanisation and absenteeism in rural areas</i></p> <p>Concerns: absentee management, lack of youth involvement</p> <p>Opportunities: sources of investment in livestock sector, new markets for livestock products</p>
<p><i>HIV/AIDS pandemic:</i></p> <p>Concerns: loss of labour, increasing household costs, pressure on government spending for agriculture.</p>
<p><i>Change in government role from implementer to facilitator of development</i></p> <p>Opportunities: more room for private initiative (e.g. input and output market); more room for NGO involvement</p>
<p><i>Changes in regional and international conditions</i></p> <ul style="list-style-type: none"> <li>• Preferential access to EU-markets is likely to phase out in future.</li> <li>• Stricter EU-disease control requirements, including the traceability requirement.</li> <li>• FMD outbreaks in border regions</li> <li>• Growth in tourism and hunting markets</li> <li>• Volatility of international tourism and wildlife utilisation</li> </ul> <p>Concerns: growing costs of exports to EU and decreasing benefits. Is it worth it? Coping mechanism to international markets</p> <p>Opportunities: development of wildlife and tourism sectors</p>
<p><i>Climate change</i> (higher temperature, greater rainfall variability and probably lower rainfall in Botswana).</p> <p>Concerns: lower primary productivity of rangelands, bush encroachment, drying up of surface water, more frequent droughts.</p> <p>Opportunities: switch to activities that are adjusted to new conditions</p>

Cattle numbers have grown dramatically between 1900 and 1980. However since 1980, the national cattle herd has not grown, but fluctuated mostly related to rainfall conditions. The number of small stock, especially goats has however, increased, but there has been a decrease in the late 1990s. The number of donkeys has tripled since 1980. Livestock numbers for 2002 were as follows: 2.9 million cattle (1980: 2.9), 1.7 million goats (1980: 06), 404 000 donkeys (1980: 130 000) and 267 000 sheep (1980: 149 000; Agricultural Statistics 2002). The trend in cattle and goats numbers is presented in Figure 2.3

Figure 2.3: Trend in the number of cattle and goats



Source: Agricultural Statistics.

Concerns about rangeland degradation and overstocking have been documented since the 1940s (Schapera, 1943). The perspective on degradation, however, changed significantly during the 1990s due to new theoretical insights, empirical evidence from other countries and better statistics and monitoring data such as the Botswana Rangeland Inventory and Monitoring Programme. The dominant view at the moment is that rangeland degradation occurs mostly around villages and water points, but is not countrywide and not irreversible (Sandford, 1983; Behnke et al, 1993). Rangeland degradation sometimes takes the form of barren soils (*sacrifice zone*) and further away it manifests itself in bush encroachment. Bush encroachment implies a growth of woody biomass and a decline of grass cover, a decrease in species variety and loss of biodiversity, and domination of bushes instead of tall trees.

## 2.2 Communal rangeland uses, users and livestock strategies

Communal rangelands can be best described as communal rangelands that are not dominated by boreholes, and are usually closer to villages (not necessarily within the 20 km buffer zone range). They are the domain of small herd owners and holders of small stock. In many cases, grazing is combined with crop production in so-called mixed farming areas. Communal rangelands are often congested, and there is no effective resource management. Rangeland resources comprise wood, grass, water, land, wildlife and veld products.

Communal rangelands are simultaneously used for different purposes, including livestock production, wood collection, and gathering of medicines, building material and 'wild' food resources and hunting.<sup>4</sup> Consequently, a wide variety of products are obtained from rangelands such as meat, milk, draught power, food, building material,

<sup>4</sup> The multiple uses of rangelands and multiple products pose serious challenges to productivity estimates of rangelands (e.g. Arntzen, 1998). Ignoring multiple uses and products often leads to the conclusion that productivity of communal rangelands is much lower than that of ranches. This may be true, but most empirical studies are faulty, as they 'forget' other no-livestock uses and non-beef products.

energy and medicines. Most products are directly used to sustain the users' livelihoods (subsistence), but some commercial use occurs too, including commercial livestock production, hunting, tourism and gathering.

Rangeland uses change *in time* and *space* and with *household income*. In the Matsheng area, Kgalagadi north, the following relationships were found (Arntzen et al, 2001):

1. An increase in household income leads to less subsistence gathering and hunting;
2. An increase in government welfare programmes has led to a decrease in subsistence hunting and gathering; and
3. Rangeland uses change with growing distance from settlements. In the village zone, crop production takes place and most small stock is kept. Moreover, small cattle herds are kept here. Fuel wood is collected and frequently used veld products (e.g. berries, vegetables). With an increase in distance, fields disappear and rangelands are used mostly for building material and for large herds that depend on boreholes. Where wildlife exists, hunting takes place.

These use dynamics need to be recognised in rangeland and livestock management strategies.

In semi-arid areas with high rainfall variability, the carrying capacity fluctuates enormously with rainfall conditions. The average carrying capacity has limited meaning for day-to-day management decisions, as it rarely prevails at any point in time. Therefore, livestock farmers adopt an '*opportunistic*' stocking strategy (Sandford, 1983) and have traditionally made *herd mobility* a key component of their livestock management strategy (Scoones and Behnke, 1993). The risks of widespread, irreversible overstocking and degradation are low, as intermittent droughts lead to frequent adjustments of livestock numbers. Instead of a sudden huge mortality that occurs after some time of overgrazing, regular die-offs and increases happen. Mobility has become more difficult over the years as most rangelands are fully used, and an increasing number of fences restrict mobility. This requires adaptive management, for example by selling livestock more frequently (movement to the abattoir instead of to reserve grazing).

Bailey (1982) described the fallback water strategy used by livestock farmers in communal rangelands. Water resources are at the centre of livestock management, as they provide water and access to nearby grass. Communal livestock owners move their herds in space based on the reliability, convenience and accessibility/ affordability of the surface and ground water resources in the area. While surface water is usually free, and hence attractive, they dry up and can only be used during part of the year.

Communal livestock farmers use a limited number of external inputs, and most aim to increase herd size rather than increase off-take. A larger herd has several advantages, including economies of scale and lower production costs, continued benefits of non-beef products such as milk, draught power and savings. Moreover, large herds are more resilient during droughts. The Carl Bro study (1982) identified several threshold levels for herd size:

- a herd size of 20 offers sufficient animals to form a draught power team;
- a herd of 40 is sufficient to acquire a stake in a water point; and
- 100 animals warrant drilling and operating one's own borehole.

The advantages of larger herds explain why Hubbard (1982) found that livestock productivity was a function of herd size, and not of land tenure (communal vis-à-vis private). It is important to study the *current* determinants of livestock and land productivity. It is expected that the factor herd size has become less important, and that household income, particularly when acquired from formal employment has become pivotal. Due to the growth in formal employment absentee livestock management has become common among large herd owners. This poses management challenges when no local management is in place.

The co-existence of fenced ranches and open communal areas permit ranch owners to use communal rangelands and conserve their ranch as reserve (*dual grazing rights*). *Dual grazing rights* are a critical issue for communal rangeland management, as the failure to exclude ranchers from communal rangelands is a disincentive for their management.

### **2.3 Rangeland management institutions**

No institution is responsible for overall rangelands management. Current management tasks are divided among three institutions.

District Land Boards (LB) allocate water points and fields, and are therefore key players in rangeland. However, LBs hardly have pro-active management responsibilities that could aim at improving rangeland resources. Such measures are vested in the Agricultural Resources Board (ARB) and its associated District Conservation Committees that can issue conservation orders and regulations and stock orders (see chapter 4). Once livestock owners have struck water, they need to obtain water rights from the WAB.

Traditional rangeland management was vested in the Chief and chief representatives. Grazing areas were controlled and managed by overseers, who could order livestock owners to move herds if rangeland conditions so demanded. The traditional system has formally lost its power with the introduction of the Tribal Land Act, but remnants of traditional management remain in some areas than to-date. The traditional management system was a CPR that operated under easier conditions, including availability of reserve rangelands and a more homogenous community that 'naturally' accepted traditional authority.

### **2.4 Concluding remarks**

Communal rangelands can be characterised as shrinking in size, having more livestock, particularly goats and donkeys, and less wildlife, more barren land and bush encroachment, decline in biodiversity and less management. Botswana shares most of these rangeland concerns with other African countries (IFAD, 1995).

Communal rangelands have become smaller due to the establishment of fenced ranches (*de jure* private) and exclusive use of rangelands with boreholes (*de-facto* private). It will no longer be possible to establish community-based rangeland management in these areas, and therefore IVP will only apply to the remaining communal areas, which are not (yet) dominated by individual boreholes.

The animal composition has changed significantly. Wildlife numbers have declined in most communal rangelands while the number of small stock has increased. The cattle herd grew until 1980, but has stabilised since then. The changes in animal composition affect rangeland productivity and livelihoods.

Rangelands experience an increase in barren land around water points and a wider increase in bush encroachment. The biodiversity of rangelands has decreased (even though the extent is not known) due to invader species and disappearance of certain grass and tree species. The decline in biodiversity affects livelihoods and future development options. IVP can (and should) assist with monitoring of rangeland resources.

Management failure has occurred in communal rangelands due to weak instruments of the responsible institutions and non-implementations of the few available instruments. Therefore, the IVP attempt to re-establish CPR is opportune, but it also needs to resolve dual grazing rights.

The role of livestock in rural livelihoods and economy has changed significantly, and this needs to be taken into account in IVP. IVP cannot exclusively focus on livestock sector, and must look at other sources of rural livelihoods in order to understand livestock management strategies.

The productivity of communal rangelands is often underestimated because of the focus on livestock, especially beef. In practice, communal rangelands are used for a mixture of livestock, wildlife and gathering and produce a range of products.

Urbanisation and development of the non-agricultural sector offer markets and new opportunities for rangelands uses, particularly in communal rangelands close to urban areas and major roads. Such opportunities need to be analysed and exploited through IVP.



### 3 POLICIES AND PROGRAMMES AFFECTING RANGELANDS AND COMMUNITIES

This chapter discusses the major policies and programmes that affect communal rangelands and their inhabitants. The policies cover rural development, agriculture, other economic sectors and natural resources. The discussion aims to identify policy components that can be used by IVP activities and to identify gaps, which should be addressed by IVP. Within the five-year period of IVP, it is difficult to address all policy gaps. However, opportunities that arise should be used (e.g. CBNRM policy and land Policy).

Botswana has a strong tradition of development policies and programmes that aim at accelerating economic growth, promoting social justice, sustaining development and ensuring economic independence (within the broader context of the 'global village'). This is reflected in the core objective of achieving sustained and diversified development through maintaining and exploiting competitiveness in global market (GoB, 2003, p. 60). The Vision 2016 advocates the transformation of Botswana's society to an educated and informed, prosperous, productive and innovative, compassionate just and caring, safe and secure, open democratic and accountable, moral and tolerant and united and proud society. Key targets include halving of poverty by the year 2016, tripling of the per capita income and halting of further spreading of HIV/AIDS.

#### 3.1 Rural development policies and strategies

The most relevant policies for this study are the 1997 Community-based Rural Development Strategy, the 2002 Rural Development Policy, the 2003 Poverty Reduction Strategy and the draft Community-Based Natural Resource Management Strategy.

##### *The 1997 Community-Based Strategy for Rural Development Strategy*

Developing rural areas in Botswana is difficult as the rural resource base has more limitations than opportunities (except for diamonds). In the past, relatively little attention was paid to what people wanted, and there was little genuine participation and institution building at the local level. The Community-based rural development strategy can be seen as a response to this shortcoming. Its aims are to stimulate community-based rural development and to promote sustainable natural resource use.

The policy still seems to be in its pilot phase even though the policy was launched in 1997. The Strategy appeared to be fading into the background, but has regained prominence with the revised Rural Development Policy.

According to the strategy communities would become primarily responsible for rural development activities, while government would assume the role of facilitator. The strategy envisages:

- Devolution of development responsibilities and control to local communities;
- Community action plans and priorities (same as IVP);
- Community liaison officers in district councils; and
- Assistance to communities by development workers, reform of extension services and NGO involvement;

Given the lack of implementation, the commitment and/ or capability of government can be questioned. The pilot phase has not shown to what extent local communities are able to drive rural development. Perhaps, the strategy is primarily a response to the limited success of past government-led development efforts.

The Strategy may become a useful point of reference for IVP, as it anchors its activities in rural development needs. This is important for the continuation of the IVP approach after the project period. Moreover, IVP can advance the CB RDS through implementation of the Community Action Plans that it shares with the strategy.

*The 2002 Revised National Policy for Rural Development (RNPRD)*

The policy defines rural development as a 'modernisation process that aims at raising rural living standards as well as enhancing a variety of social welfare services geared towards self reliance and sustainable development' (page 13). The primary aim of rural development is therefore to enhance the quality of life of all people who live in Botswana's rural areas, and to widen their choices. The specific policy objectives are to reduce poverty, provide opportunities for income generation and economic activities, create employment and enhance popular participation in development planning and implementation processes as a basis for broad-based, balance and sustainable development.

Its planned activities include support for CB projects, special support for women within CBNRM projects. Among the listed programme activities that are relevant for this study are:

- Livelihood diversification through veld products and wildlife;
- Stronger and clearer property rights;
- Preparation of comprehensive integrated district land and water management plans;
- Strengthening of local authorities, in particularly reviewing the role of VDCs;
- Providing essential social safety networks and poverty reduction; and
- Cost-effective restoration of degraded rangeland resources and regeneration of veld products.

Specific recommendations are made for communal rangeland management and veld products (see Figure 3.1). Many of these recommendations are directly relevant to IVP. Therefore, IVP needs to promote the implementation of these recommendations, in particular the establishment of CB-common property regimes, piloting of community grazing zones around villages, restoration of degraded land, expansion of CB projects to veld products and reformed extension support.

The policy offers important opportunities for IVP. The RD policy could support projects such as IVP, as the CBRD strategy remains at the centre of rural development initiatives, and therefore the IVP actions should be closely linked to the implementation of the RD policy. The policy laments the weak linkages between environmental policies and rural development and the failure to implement many environmental policies. The IVP project should exploit its potential to link environmental policies with RD and agricultural policies.

**Figure 3.1: Recommendations from the Revised National Policy on Rural Development with respect to communal rangelands and veld products**

Communal livestock sector

- Promote livestock production because of its livelihood and social importance;
- Maintain subsistence livestock production in designated communal areas with strong extension support
- Preserve livestock grazing by control of overgrazing and degradation;
- Establish community property regimes through community or group-based control (Rec. 98).
- Balance social and economic functions of subsistence livestock production (e.g. fees);
- Enable communities to sub-lease or enter into a joint venture (Rec. 103)
- Introduce improved livestock management systems in communal grazing areas and ranches;
- Pilot with fenced off multi-purpose, community-managed zones around villages. Communities would form a RALE and develop a management plan. Need to clarify which resources fall under exclusive resource use rights

Veld products

- Expand the CBNRM approach to veld products (CPR) and offer short term assistance;
- Develop a CPR inclusive veld products policy;

Institutions

- Strengthen function of VDCs as well as private sector, NGOs and CBOs in rural areas
- Establish veld products support unit in MoA

*The 2003 Poverty Reduction Strategy (PR Strategy)*

Poverty is interpreted as poverty of income, capability and/ or participation. The stated overall aim is to develop opportunities to sustain livelihoods by employment creation through economic diversification and evenly spread development. Poverty will be attacked by a combination of sound macro-economic policies, district development planning based on natural resources and comparative advantages, provision of a safety net for those who cannot take economic opportunities themselves and enhancing access to social services and investments by the poor

The PR strategy has a livelihood component that includes the promotion of CBNRM. Other components strive to encourage genuine participation, strengthen human capabilities and strengthening of the CBNRM capacity of Districts and extension services.

The PR Strategy does not add much to existing programmes and policies, but it offers more opportunities for the IVP project. Strengthening the capacity of service providers, including extension services, may be most important. The IVP project needs to become a platform for trials of community-centred, integrated service provision (cf. a local version of Namibia's FIRM approach).

*The 2003 draft CBNRM Policy*

Natural resources are defined as non-domesticated biological resources. Therefore, they exclude groundwater and land.

The first draft was produced in 2000, and the most recent one is dated March 2003<sup>5</sup>. The policy aims to provide a stimulating environment for the growing number of CBNRM projects, most of which deal with wildlife resources. The Policy offers a platform for broadening the scope of resources covered by CBNRM projects, for example offering policy support to a veld product based community project such as Kgetsi ya Tsie.

The aim of the policy is to establish common property regimes for biological resources that are now threatened by open access and ineffective management. Moreover, the policy aims to link resource conservation and rural development by strengthening local resource management and by increasing local benefits. It hopes to fill current management inadequacies by establishing a multi-resource and multi-sectoral instead of single resource/sector approach, provide systematic instead of ad-hoc procedures for local resource management and finally to ensure resource monitoring and adherence to resource use standards. The local population must reap net benefits of natural resource in order to contribute towards their conservation. Instead, over the last decades the benefits have dwindled and the costs went up.

The CBNRM policy is of critical importance to IVP. The current draft CBNRM policy brings together existing instruments and measures, and contains few new elements. It focuses on wildlife and tourism (including the Parks and People strategy), and mention CB woodlands and fishery zones. In addition, communities can be granted user rights of certain veldproducts under the Agricultural Resources Conservation Act. At the same time, the policy mentions that this Act will be reviewed. The main tools for community management are CBO leases for CHAs (wildlife and tourism); community resource-use zones (forests and fisheries); and Parks and People strategy (e.g. community zones inside Parks and support for communities living in the vicinity of Parks). The Policy proposes the establishment of a CBNRM co-ordinating unit and encourages joint ventures between communities and the private sector.

The current draft does not deal with rangeland resources, and does not refer to agricultural resources. From the IVP perspective, there is need to explicitly deal with such resources and determine the communities' responsibilities and rights. The policy does not deal with land and water rights, and therefore cannot ensure a genuinely integrated resource management approach, as land and water are vital. Moreover, it is unclear what the spatial unit of operation for communities will become. The currently used CHA classification is a classification for wildlife administration and not necessarily most appropriate for other natural resources and for local management. There is therefore need to address the issue of spatial unit for community management. Finally, the policy mostly refers to existing support of service providers. Efficient, community based service provision requires more than a coordinating unit. There seems to be need for a review of the entire support landscape and infrastructure, and reform it into a community-friendly manner.

### **3.2 Sectoral policies**

Livestock and tourism (hunting and photosafaris) are currently the major specific sectors supported by policies. Crop policies are less relevant for rangelands, particularly since the arable sector is depressed and encroachment into rangelands is currently not a big concern (idle fields are a much greater concern).

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<sup>5</sup> During May, the latest draft was discussed in a national stakeholder workshop.

### **3.2.1 Livestock and grazing policies**

Botswana's rangelands have been shaped by the Tribal Grazing Land Policy (TGLP) of 1975 and by the National Policy of Agricultural development (1991). Particularly the first policy and its associated Livestock Development Projects have been reviewed many times (e.g. Bekure and Dyson-Hudson, 1982; White, 1993).

#### *The Tribal Grazing Land Policy (1975)*

The objectives were to increase income of large and small cattle owners, to increase productivity and to improve range management. The TGLP paper also aimed at safeguarding the interest of small cattle owners and non-livestock owners. Large herds would move of communal areas into ranches, creating more space for small herds. Ranch owners would receive exclusive land rights for 50 years with limited transferability and pay an annual land rental (now at P 075/ha having been P 0.04 for a long time). Groups of small cattle owners would receive priority during ranch allocations. Reserves would be set-aside for future cattle owners. The size of the communal grazing areas would be based on the needs of the local population, and the left over would be destined for commercial ranches (p. 11)

In communal areas, Land Boards would control cattle numbers, and could set a ceiling for the number of livestock to be held per person. Land Boards could also specify the number of land holdings and the total area held by one individual. Water points would not be individually owned. In commercial areas, displaced cattle owners would be compensated and reserves would serve the future interest of the poor and be available for non-livestock uses.

The TGLP paper had a good balance between commercial and subsistence areas and interests and contained useful instruments in land use planning, granting of exclusive rights to ranches and LB-control over grazing conditions and livestock number in communal areas. Monitoring of the policy's impact on land distribution, natural resources and rural incomes was planned.

In contrast with its balanced approach, the implementation of TGLP almost exclusively focused on ranches and commercial livestock production, and TGLP hence lost its original balanced approach. The policy became synonymous with fencing and ranches. The policy was implemented through a series of Livestock Development Programmes.

There is no evidence that livestock productivity has increased (MoA, 1990) and stocking rates in communal areas have not improved, as few large herds actually moved out and cattle of displaced cattle owners were moved back into communal areas. The policy has been criticised on several grounds:

- Wrong assumptions such as the notion that there were no large empty tracks of land for commercial ranches; water was available in areas designated for commercial ranches; fencing is the key constraint to improving livestock productivity, and therefore ranching would automatically double productivity.

After more than 25 years, there is no conclusive empirical evidence that TGLP ranches are more productive than communal areas<sup>6</sup>.

- Ranching may not be the best management model for semi arid rangelands. It certainly requires other type of management than the unfenced livestock production model. As the carrying capacity fluctuates enormously with rainfall variations, livestock mobility is essential in livestock management. Fenced ranches restrict mobility and hence require different and adjusted management practices than the traditional ones;
- TGLP introduced the dual grazing right issue. While communal farmers no longer had access to ranches, ranch owners continued to have rights to communal rangelands, hence discouraging communal farmers to manage rangelands sustainably. Private ranches could be used as reserve for dry season and drought periods.

#### *National Policy on Agricultural Development (NPAD 1991)*

Agricultural stagnation gave rise to a sectoral assessment, and subsequently to the NPAD. The performance of the livestock sector was considered to be poor with a low off-take and a stagnant animal weight.

The policy's objective was to increase production without or with minimal adverse environmental consequences. Employment and income creation, agricultural diversification and resource conservation were some of the specific objectives.

For the livestock sector, the following measures were mentioned: breeding with AI, veterinary services, increased milk production and tsetse eradication. The policy mentions many measures for rangelands, including subsidies of fodder and animal feed. In addition, fencing of certain areas would be allowed, and exclusive rights would be granted to individuals, groups or communities. Borehole owners would automatically be granted exclusive land right, hence transforming de-facto private land use to de-jure private land. Ranches would be allocated after land use plans had been prepared and were approved by Land Boards. Then the Ministry of Agriculture would demarcate ranches and the Land Boards would start allocation process. The policy does not mention criteria and guidelines for the selection of suitable areas and for ranch allocation. In practice, buffer zones of at least 20 km around villages are distinguished, where ranches cannot be allocated. Communities would qualify for a wide range of subsidies and support measures.

The fencing component is a continuation of the TGLP ranching component. Unlike TGLP however, the NPAD does not see a future for communal rangeland management, as it is judged unable to increase productivity and improve resource management, and it is unsuitable to control and eradicate livestock diseases. Community livestock efforts should therefore be restricted to ranches through community owned ranches.

The NPAD is important for IVP for at least two reasons. Firstly, ranches are the trust of the livestock efforts, even without reviewing the performance and impacts of the existing TGLP ranches. Secondly, the policy contains the clearest condemnation of the Ministry of the communal management system. Therefore, subsequent livestock efforts are fully

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<sup>6</sup> Productivity is unlikely to increase as long as most people want ranches to save on labour. This happened in the Boteti district (Motlogelwa, not dated). Improved management practices were advanced as a reason for fencing by less than 2% of the respondents.

geared towards ranching, even though a growing amount of literature casts doubts about the feasibility of ranching in semi-arid rangelands.

#### *Livestock support programmes*

The government has a wide range of livestock support programmes and measures in place. The Livestock water Development programme (LWDP) offers financial support for borehole drilling or equipping to syndicates and individuals. The Programme Support for Livestock Owners in Communal Areas (SLOCA) also offers support for a wide range of management practices, including fencing, water points firebreaks.

Government also free vaccination for livestock diseases of national importance, and offers livestock owners the attractive taxation option to write off profits obtained from non-livestock activities against livestock losses.

The prolonged and substantial support to the livestock sector has probably contributed towards the failure of the sector to increase its production and productivity. The support has attracted non-serious livestock farmers who were interested in land or lower taxation rather than increasing production, or see livestock as a future retirement project. Such farmers restrict expansion opportunities of the successful livestock farmers.

### **3.2.2 Tourism development policies**

Tourism has emerged as a major alternative land use in western and northern Botswana. It competes for resources with livestock sector and conflicts between livestock and tourism have increased. Tourism now contributes more to the national income than the livestock sector. The policies and programmes offer communities the opportunities to run tourism concession areas, participate in eco-tourism and develop cultural activities.

The growth in tourism has been accompanied by the development of tourism policies and programmes that offer opportunities for community rangeland management. Community participation is seen as an opportunity to boost tourism (Table 3.1). Tourism promotion started on a significant scale with the 1990 Tourism Policy. This policy was followed by the Tourism Master Plan (2000), the Tourism Development Framework (2001) and the Eco-tourism Strategy (2002). Botswana's tourism is primarily based on wildlife and wilderness resources. Other comparative advantages include attractive scenery, remote and less crowded Parks and Reserves, exclusive lodges and camps, efficient tour operators safety and political stability. Drawbacks include the high costs of tourism, relatively poor connections to the market and poor quality of services.

The Tourism Master Plan contains an interesting SWOT analysis of the sector, summarised in Table 3.1. Involvement of local communities is considered to be a major opportunity, particularly given the large size of communal areas as compared to neighbouring countries.

Table 3.1: SWOT analysis of tourism in Botswana

Strengths	Weaknesses
Wildlife and wilderness	Infancy of tourism development
Political and economic stability	Limited tourism awareness
Friendliness of people	Bureaucratic procedures
Good physical infrastructure	Weak tourism organisations
Opportunities	Threats
Product diversification	Unbalanced development
Involvement of local communities	Negative socio-cultural impacts
Increase industry's standards	Regional political instability
Develop domestic tourism	Negative environmental impacts

Source: based on Department of Tourism, 2000.

#### *Tourism Policy (1990)*

The policy was developed for several reasons, including under valuation of tourism in the past, the rapid growth of tourism potential and the lack of benefits for Botswana. The objective of the policy is to obtain on a *sustainable basis* the greatest possible net social and economic benefits for Botswana from tourism resources. Tourism needs to generate more employment, income, government revenues and foreign exchange, stimulate rural development and improve the quality of life. The policy envisages licensing, grading of facilities and regulations, but for this study the establishment of tourism concession areas (TCA) is the most important tool. In tourism concessions, exclusive user rights are ceded to communities or companies through granting of leases (15 years broken down in three periods of five years). Tourism concession areas will follow the boundaries of CHAs and WMAs as much as possible. This makes sense as tourism is strongly based on wildlife and wilderness experiences. Rentals are due (waived for communities at present) and permanent structures may be built. Unlike with livestock ranches, the policy provides a transparent and efficient allocation mechanism for tourism concessions: TCAs will be advertised and tendered. 'Other things being equal, the concession will be granted to the applicant offering the highest rent (p. 8). The rental goes to government (State Land), communities (on Tribal Land where communities hold the user rights) or to the Land Boards (other Tribal Land).

Tourism companies may benefit from the CEDA financial assistance programme.

#### *Tourism Development Plan 2000*

The Tourism Master Plan seeks to develop the tourism sector by identifying and exploiting the country's comparative advantages and disadvantages of the sector. The Plan identifies four core principles: diversification of tourism products (e.g. culture and archaeological sites); empowerment of citizens and communities; promotion of private/public partnerships; and ensuring ecological and economic sustainability.

New instruments will be the National Tourism Board and the establishment of a Tourism Development Fund that can presumably be accessed by communities.

#### *Tourism Development Framework (2001)*

The Framework aims to identify projects for implementation outside the traditional major destination of the Okavango and Chobe, based among others on wildlife/ wilderness experiences and community based tourism.



### *Ecotourism strategy (2002)*

The goal of this strategy is to create a favourable environment for tourism development and management based on key principles of ecotourism, such as: minimal negative social, environmental and cultural impacts, maximum contribution of local communities, reinvest in resource conservation, educate stakeholders about resource conservation and deliver high quality products.

The strategy mentions that incentives should be provided for CBNRM communities, and that the participation of Botswana in tourism needs to be encouraged. The Strategy will be implemented through the Ecotourism Action Plan.

## **3.3 Policies towards natural resources**

### **3.3.1 Land policy**

Although Botswana has a well-established system of land use planning, there is no comprehensive policy on land resources. Land management relies on various Acts and on land-use zoning. A Land Policy is, however, in preparation. A report with recommendations has been produced, and countrywide consultations have been held. The report and the result of the consultations will lead to a draft land policy for consideration by Cabinet.

The consultancy report recognises the need for better management of communal land as well as that of WMAs and Tourism Concession Areas (TCAs). It recommends that a working group be established to develop CPR principles for CB-management and that land and resource user rights are devolved to communities. Education about the nature and responsibilities of the rights is needed to avoid conflicts, and Land Boards should play a greater role in monitoring of resource and land use.

The consultancy report contains a lot of useful pointers for CB rangeland management. However, it does not clarify the exact nature of the proposed community rights and which resources local communities should manage. CPR land management principles and guidelines have been referred to a working group, and may therefore not be resolved in the new Land Policy. This would hamper IVP, as community rights will not be clarified. Nonetheless, the Policy could be used to strengthen the authority of CBO towards local resource management. Full CBO land rights, as they exist in Tanzania, however appear unlikely.

### **3.3.2 Water resources**

Botswana does not have a water policy. However, various rules have been applied that influence the use of and access to water resources. The water point spacing rule has arguably played a major role in rangeland use and management. The rule originated in traditional rangeland management, and was meant to curb overgrazing and control livestock numbers. The rule was taken over by modern institutions such as the Land Boards. However, the rule has been adjusted several times. Initially, the rule applied to all water points, but was later mostly applied to groundwater resources. Recently, the distance between boreholes was relaxed from 8 to 6 km. As a result of these modifications, more water points could be accommodated.

**Table: 3.2:** Summary of the land policy proposals for communal land management

The review concludes that the context of land use has changed considerably over the least decades, and that land-based activities have become less important for rural livelihoods. Nonetheless, changes in land tenure and land management must be made with great care because of the social importance of land and the sensitivity of land issues.

The analysis of rural land management is most important for this study. Seven issues are raised with respect to rural land management:

1. Need for greater flexibility in rural land use;
2. Protection of arable land;
3. Management of land occupied communally;
4. Management of leasehold ranches;
5. Management of wildlife management areas;
6. Management of tourism areas.

Greater flexibility in rural land use is recommended by introducing the option to lease out residential and arable land, and enter in sharecropping/ farming arrangements;

Better management of communal land is recommended by:

- the development of community-based management principles for all land use activities;
- recognition of Community-Based Property Rights (CBPR), for example in the Tribal Land Act.
- Devolve allocation and management of land and natural resources to CBOs.
- Publicise CBNRM review; *an up-date of this recommendation would be to finalise and approve the CBNRM policy;*
- Levelling the playing field between wildlife and livestock sectors through similar treatment in terms of incentives (R 72/73).
- Review the current leases for tourism concessions, particularly their duration (R 78).
- Educate communities about their rights and responsibilities with respect to community tourism concessions (R 78)
- Stronger monitoring (and where needed support) by Land Boards of communities, concessionaires and joint venture partners.

The results of the countrywide consultation are not yet available. Furthermore, it is not known which proposals and recommendations will be incorporated in the National Land Policy.

During the discussion of TGLP, we noted that individual ownership of water points in communal rangelands was discouraged. To our knowledge, this measure has never been implemented.

The rule that no livestock boreholes be drilled in WMAs has restricted livestock expansion into such areas. This rule has been successfully used by Land Boards.

### **3.3.3 Wildlife resources**

Wildlife utilisation has become a major alternative land use in western and northern Botswana. Policies and programmes have accompanied this trend since 1986. These policies offer communities growing opportunities to develop wildlife utilisation projects in community zones inside Parks, WMAs and on game ranches/ farms. Communities can acquire exclusive wildlife utilisation rights.

Wildlife policy formulation has been instrumental in the advance of community based resource management. Key policies are the Wildlife Utilisation Policy (1986) and the Wildlife Conservation and National Parks Act (1992). Specific policies have been developed such as the Ostrich Management Plan (1994), the 2000 National Parks and Game reserve Regulations and the Game Farming Policy (2002).

The 1986 Wildlife Utilisation Policy is the first wildlife policy that explicitly recognises the economic value and benefits of wildlife resources outside protected areas and the importance of wildlife utilisation for conservation. It challenges the implicit assumption of livestock policies that the livestock sector has a comparative advantage outside protected areas. The policy argues that the benefits of wildlife utilisation could be higher than those of traditional agriculture in parts of the country. The policy aims at developing a viable commercial wildlife industry and developing the full economic potential of wildlife as well as increasing the supply of game meat from commercial wildlife activities.

The introduction of wildlife management areas (WMA) is the main instrument of the policy. In WMAs, wildlife utilisation is the primary form of land use, and agricultural development is restricted. No livestock boreholes are permitted inside WMAs. WMAs were to be located in areas that were designated reserves under the TGLP. The areas should be wildlife rich, close to Parks or Reserves, located along migration routes and/or marginal rangelands. Most WMAs are located in northern and western Botswana. The designation should be done through extensive local consultations.

The 1986 policy contains instruments to protect migration routes and to mitigate the impacts of reduced wildlife mobility. The instruments include drilling of boreholes, adjustment of fences and joint veterinary/ wildlife research to study key aspects of wildlife-livestock conflicts. A hunting quota and license system determine the permitted off-take control. The policy also mentions the possibility of restocking of game depleted tribal or communal areas (following request to DWNP) or hunting bans when the resource situation so requires.

Since 2000, Management Plans of Parks and reserves may designate *community use zones* for use by designated communities living in and next to Parks or Reserves. Hunting is not allowed in these zones, but commercial tourism and gathering of veld products is permitted. DWNP could charge a fee.

The 2002 Game Ranching Policy offers communities some opportunities for game farms (intensive; fenced) and ranches (free roaming; extensive), including live capture.

### **3.3.4 Veldproducts, fish and wood resources**

No formal policies exist for veldproducts, fish and wood resources, and these resources are mostly governed by legislation. The proposed draft CBNRM policy covers the resources as far as community based management is concerned.

### **3.4.5 National Policy on Natural Resources Conservation and Development**

This policy was formulated in response to growing natural resources concerns. The policy aims to increase the effectiveness of natural resource use and management and to coordinate and integrate environmental efforts of individual ministries.

Seven specific development and conservation goals are formulated, which would be pursued by provision of economic incentives, law development and enforcement, strengthening planning and administrative procedures and environmental education. With respect to rangelands, the following measures are mentioned: strengthening the range ecology unit, land use zoning and gazetting, development of a comprehensive livestock water policy, better information provision to farmers about rangeland conditions, price incentives for better rangeland management and facilitate implementation of existing rangeland management instruments.

The ideas have been elaborated in a 1998 National Environmental Action Plan that focuses on incentives, environmental legislation and education. However, implementation of the policy and plan has been hampered by the delay in the Environmental Management Act that would formalise the status and responsibilities of the National Conservation Strategy Coordinating Agency.

### **3.4.6 National programmes for the Implementation of UN Conventions**

The IVP is closely linked to the UN Convention to Combat Desertification (UNCCD) and to the UN Convention on Biodiversity (UNCBD).

#### *Botswana's national UNCCD programme*

Botswana signed the UNCCD in October 1995, and ratification took place in September 1996. Subsequently, a National Action Plan to Combat Desertification (NAPCD) was developed. (Department of Crop Production and Forestry, 2003).

The objective of the UNCCD is to combat desertification and mitigate the adverse impacts of drought. As Africa is most heavily affected by desertification and drought, the UNCCD particularly focuses on Africa.

The NAPCD was prepared after intensive consultations with all parties involved. The consultations identified seven priority areas for Botswana's NAPCD, including poverty alleviation, capacity building, education and technology transfer, research, effective partnerships between parties, and funding to combat desertification.

The NAPCD includes:

- Environmental education: production and dissemination of educational material;
- Establishment of pilot projects in four areas, including Rakops, Lehututu, Mokobeng and Matsiloje. Only Rakops is close to an IVP site. It is unclear why IVP sites and NAPCD pilots are not merged. Given the capacity constraints identified in the NAPCD, this would have made sense.

The NAPCD identifies activities for each of the areas, but typically works through existing policies and programmes (e.g. NDP and DDPs). Apart from the educational material and the pilot sites, little additional activities are envisaged. Progress with the pilots is not documented.

#### *Botswana's National Biodiversity Strategy and Action Plan*

The NCSA started preparations for the BD Strategy and Action in 2003, and the Strategy and Action Plan are expected to be complete in 2004. After an initial 'stock-taking' exercise or baseline survey of available information and data, a discussion paper was

prepared for the Strategy and Action Plan. This paper has been discussed during local consultations in villages and at the district level. At present, a draft Action Plan is being prepared that will outline the required activities. Rangelands, veld products and wood resources are important BD resources. In addition, the AP contains activities on resource monitoring (including natural resource accounting), awareness raising, provision of incentives for BD conservation and utilisation. It recommends that community-based resource management will be supported as a way of re-asserting common property resource management in communal areas.

### **3.5 Concluding remarks**

In essence, IVP has stayed away from issues related to policies and programmes. Being located in the Ministry of Agriculture, it has isolated itself from more community-oriented approaches towards rural development and CBNRM. Instead, it had to face strong preference of the Ministry of Agriculture for land privatisation. If IVP is to succeed and sustain itself beyond the initial project period, it will have to utilise existing community based resource management options better (especially in rural development and wildlife/veldproducts). Moreover, IVP should actively lobby for recognition of community rights for rangelands management in evolving policies such as the Land Policy and the CBNRM policy.

There has been a strong trend towards CB development and management in rural development, wildlife and tourism. The trend started in 1986 with the Wildlife Conservation Policy, and accelerated in the second half of the 1990s.

In contrast, agricultural policies seem to despair about the potential of communal resource management, and prefer resource privatisation. This is clear from the comparison of 1975 TGLP and 1991, and the way in which TGLP has been implemented. The explanation may be that the Ministry has seen many failures of groups and syndicates in the past. Another explanation may be increasing concerns about livestock control and traceability requirements. It is also possible that private development serves the needs of large cattle owners better.

Whatever the case is, it is difficult to understand why no research has been done to estimate the benefits of ranches and its superiority over the cattle post system in 'real life situations', and why regular agricultural statistics (Agricultural Statistics and Farm management Surveys) have not collected representative data for the private sector. This is a major omission for a key instrument in agricultural policies.

There are serious policy gaps in the field of veld products, rangelands resources, water resources and wood resources despite the announcement that such policies will be prepared (NDP8 for veldproducts) or that drafts have existed for a long time (e.g. forestry).

Several CB support programmes and measures exist or are being developed that can be used by IVP project. Examples include:

- The establishment of CB liaison officers in District Councils (RD strategy);
- Community Action Plans (RD strategy);
- Community zones in Parks (2000 Parks and Reserve Regulations);

- Community ranches (NADP 1991) and game ranches (2002);
- Community grazing zones (2002 RD Policy);
- Re-focusing and orientation of extension workers;
- CBNRM support unit and integrated natural resource committee (draft CBNRM policy);
- Community veld products permits (draft CBNRM policy)
- Community woodlands and fishery zones (draft CBNRM policy);
- Specific recommendations, including restoration of degraded land, listed in the new Revised Rural Development Policy.

The spatial unit of CB management is a concern, particularly when the approach is widened to more and more natural resources. At present, CB management of wildlife and tourism concessions is based on Controlled Hunting Areas. It is unlikely that CHAs are the relevant spatial classification for rangelands and veld products and wood resources. IVP should pilot with the exploration of suitable spatial units for CB rangeland management.

Support levels to economic sectors widely differ. While livestock policies offer substantial support for livestock farmers, the game farming policy does not offer special financial support. Consequently, rangeland users have stronger incentives to engage in livestock production. There is need to review the level and nature of support to various types of rangeland activities in order to promote activities that are most suitable to local conditions.

Finally, there is lack of integration between policies, particularly in two areas. Agricultural policies tend to be separate and not well integrated with rural development strategy and policy. Moreover, resource policies are not well linked into rural development policies. Consequently, it would be surprising if the most suitable activity and form of resource use takes place is promoted through policies. There is need for integrated policy implementation to correct this situation.

## **4 THE LEGAL FRAMEWORK FOR THE PROTECTION AND MANAGEMENT OF RANGELANDS**

This chapter deals with the regulatory and institutional framework and procedures governing rangeland use and management. Customary and modern regulations are reviewed first in order to identify the most relevant components for the IVP projects as well as the gaps that need to be filled (sections 4.1-4.3). Subsequently, institutional structures are being reviewed together with the institutional options for community-based rangeland management (sections 4.4-4.5).

### **4.1 Customary law**

Traditional law comprises rules and principles of law that originate from the customary practices, usages and observances of the Tswana tribes. This law has a developed body of rules and principles for the protection of rangelands. Land was basically divided into four categories: residential, arable, grazing and hunting land (Schapera, 1955). Every household in the tribe was allocated land to use for arable and residential purposes.

Grazing and hunting areas constituted the communal rangelands. The communal rangelands were collectively utilised for grazing, hunting and collection of wild and other products. As explained in chapter 2, communal rangelands have shrunk and land Boards have taken over the responsibility of their management (cf. section 4.3).

Traditionally, every household was allocated an area to graze its livestock. Household members had the user right to graze in this area and to exclude other households from grazing in the area. The household also held the right to water points in the grazing area. Outsiders could only use the water in the grazing areas with the permission of the households (Schapera, 1955; Roberts and Comaroff, 1981).

Hunting areas were allocated to a group of families in wards. However, other members of the tribe were entitled to hunt in these areas without any limitations. Hunting could also take place in grazing areas. Communities had user-hunting rights over the land. Although much of this land has been reduced some of it still exists in many tribal areas in Botswana.

In the past, customary law was effectively regulated and managed communal rangelands. Customary rules and practices regulated the harvest and utilisation of rangelands, rangeland resources and wild products. Taboos and totems prohibited the use of certain types of trees and their products, and these rules were strictly enforced.

Before the LBs were constituted, the chief played a very central role in the enforcement of the rules. The chief and the various headmen in the villages had the power to punish any individual who contravened these rules. Even today, some of the customary rules regarding the use of certain rangeland products exist and are enforced. In those areas, customary law can be utilised to effectively protect rangelands and their resources, particularly as reinforcement of modern law.

Customary law has certain limitations that adversely affect its usefulness for modern-day rangeland management. Firstly, customary law is by nature unwritten or uncodified. It is based on practices and usages of the tribe. Consequently, the rules are sometimes

unclear, uncertain and unpredictable. It is difficult to establish the exact rules that apply in a given area. Secondly, customary law is not uniform across tribal groupings. As it varies from tribe to tribe, it is difficult to use it nowadays to regulate rangeland management. The variation in rules easily leads to disputes and different interpretations. It would be important to establish for each IVP site which traditional rules and institutions still exist and are effective. Such rules could be built into a community-based rangeland management regime.

## **4.2 Statutory law**

### **4.2.1 Overview of legislative framework**

Botswana does not possess comprehensive legislation on rangelands management and protection. There are a number of legislative instrument that have both direct and indirect bearing on communal rangelands. Below is an examination of these instruments with a view to finding out the extent to which they regulate communal grazing rangelands.

#### *Agricultural Resources Conservation Act, Cap. 35:06*

The main aim of this Act is to control and conserve agricultural resources in Botswana. Agricultural resources include animals, birds, plants, waters, soils, vegetation and vegetation products, fish, insects and such other similar thing that the Minister may declare to be an agricultural resource. The Act establishes the Agricultural Resources Board (ARB) as the institution charged with the implementation of its provisions. The ARB also advises the responsible Minister on the nature of legislation necessary to secure or promote the proper conservation, use and improvement of agricultural resources. Thus the ARB has the power to control the exploitation and utilisation of rangelands resources by:

- Issuing licenses or permits authorising individuals or groups to collect rangelands resources;
- Issuing conservation orders and regulations and stock order for degraded areas. *Conservation orders* are written orders to the owner or occupier of land to undertake or adapt such measures necessary for the conservation of agricultural resources whereas conservation regulations are regulations that control land use practices. *Stock control order* is an order issued by the ARB prescribing the maximum number and class of stock that may be kept or pastured by the owner or occupier of land or which may be watered at a watering point [Agricultural Resources Conservation Act: section 16 (1) (a) and (b)].

While the ARB has established permit systems for several veld products, no orders and regulations have ever been issued.

The Act is limited to controlling and conserving agricultural resources. It does not address the issue of active management, which constitutes an important component of the protection of these resources.

The Act does not define agricultural resources precisely. It defines them to mean the plant life and vegetation of Botswana and vegetation products of the soil; animal life and fauna of Botswana, birds, reptiles, fish and insects and such other similar things that the Minister may declare to be agricultural resources (Section 2). It merely enumerates



broadly plant and animal species that constitute agricultural resources. The broad definition ensures that any resource is covered, and it may be interpreted to include all rangeland resources. In practice, there is confusion and lack of clarity on the resources that are really protected by the legislation. The protection of these resources should not be based on inferences, which might be wrong or baseless, and the Act should expressly state that it covers communal rangelands.

Since its enactment in 1974, no conservation or stock order has been issued. In other words, the Act has not been used to actively manage rangeland resources. Nonetheless, the Act could be used as a conservation tool, if the tools would be utilised. For example, IVP communities could request the ARB to issue order and regulations for 'their' communal rangelands.

#### *The Wildlife Conservation and National Parks Act No. 28/1992*

This legislation is designed to protect and conserve the country's wildlife resources. The Act's main objectives are to regulate the conservation, management and protection of wildlife resources. The Act establishes land zones with different degrees of wildlife protection, i.e.:

- wildlife conservation areas such as National Parks and Game Reserves (no hunting); and
- wildlife conservation and utilisation areas such as Wildlife Management Areas (WMA) and Controlled Hunting Areas (CHA).

The Act incorporates CITES into the national law of Botswana. This legislation protects wildlife in the country, and is important for rangeland management because of its land zoning and associated user restrictions. The issue for IVP sites is how communities can benefit from different categories of wildlife areas.

#### *Tourism Act No. 22/1992*

This Act aims at regulating tourism activity in Botswana. This activity may be undertaken in tourism concession areas (TCAs) wherein there are resources that fall under rangelands resources and in areas occupied by rural communities such as Chobe, Ngamiland, Ghanzi and Kgalagadi. As communities may qualify for user rights over TCAs.

#### *Waste Management Act, 1998*

The aim of this Act is to regulate and manage disposal of waste in the country. It indirectly relates to rangeland because waste disposal can also be deposited in community rangelands. The Act prohibits uncontrolled waste disposal, and provides for waste removal at the costs of the polluter. It is, obviously, difficult to identify and charge the polluters.

#### *Water Act, 1968*

This Act deals with the granting of water rights in the country. It provides for conditions under which water rights can be granted to occupiers of land and various right limitations. The Water Apportionment Board (WAB) is responsible for the granting water rights. Such water rights have a ceiling for water abstraction and are conditional (e.g. drought). Rights are normally granted to individuals or companies, but there is no reason why communities cannot apply for water rights.

A revised Water Act (1991) has not been enacted. The Act does not have explicit references to community water rights and responsibilities. However, there appears to be no prohibition for granting water rights to communities in community-managed areas.

#### *Tribal Land Act*

The aim of the Act is to manage Tribal Land by transferring powers and responsibilities with respect to tribal Land from the Chief to District Land Boards (LB). The Land Boards become the custodian of Tribal Land. The Act was amended in 1993 to authorise LB any transfer of tribal land. The restriction to land rights to one's district of origin was removed, and people could now acquire land rights anywhere in the country.

Obviously, the 1993 amended Tribal Land Act is critical to communal rangelands and IVP. Community rights prevail in communal rangelands unless these are converted into leasehold land. However, such rights are implicit, and do not lead to formal titles for communities. Therefore, land use zoning is currently the main instruments of communal rangelands. Communities could strengthen their rights by formally applying for community user rights over rangelands.

#### *Town and Country Planning Act Cap. 32:09*

The Act aims at achieving the orderly progressive development of land in urban and rural areas. Planning permission should be acquired for any development on, under or above land to take place. All applications for development are routed through Local Authority committees to the Town and Country Planning Board, housed in the Ministry of Lands and Housing. Development should conform to a series of conditions and standards contained in the Development Control Code.

#### *Societies Act, Cap. 18:01*

This Act deals with the registration of societies in the country. It provides for the conditions under which societies may and may not be registered in the Botswana and exemption of certain societies from registration. It is relevant to communal grazing rangelands because any registration of institutions dealing with communal grazing rangelands by the Registrar of Societies has to comply with Act. It defines a society to include any club, company, partnership or association of 10 or more persons, whatever its nature or objects.

### **4.2.2 Analysis of the legislative rangeland management framework**

The above section shows that a large number of laws are of direct and indirect relevance to rangeland management. The Tribal Land Act, the Agricultural Resources Conservation Act, The Wildlife Conservation and National Parks Act and the Water Act are the most important ones. Several factors adversely affect the effectiveness of the legislative framework for communal rangeland management. These are discussed below.

#### *Lack of comprehensive legislation on rangelands*

There is no specific law that deals with rangelands. This leads to a fragmentation and lack of coordination of legislative instruments. Moreover, it leaves some rangeland resources prone to open access (e.g. wood resources and veld products not covered by the ARCA).

In the absence of comprehensive legislation, it is important that the existing laws such as ARCA are given a broad interpretation, and cover as many rangeland resources as possible. Otherwise, such resources are at risk of open access.

*No definition and typology of rangeland resources*

None of the surveyed legislation defines rangelands and rangelands products. The legislation does not clearly delineate rangeland resources from other resources such as agricultural resources, veldproducts etc. Some laws define certain types of rangelands but they are either broad or inadequate. For instance, the definition of agricultural resources in the ARCA is very broad, and the Act does not specifically define rangelands resources. Similarly, the Herbage Preservation (Preservation of Fires) which defines vegetation as growing or standing vegetation and includes any tree or part thereof and any bush, shrubs, *brushwood*, undergrowth, grass, crops or *stubble* is inadequate. It only deals with vegetation. This presents problems when it comes to the use of the legislation to protect rangelands.

*Lack of specification of community rights over rangelands*

Most of the existing legislation does not clearly define the rights of communities. (e.g. which resources and the nature and content of rights). Communities can be granted resource use rights over wildlife and tourism. Community rights, may also be implicitly accepted within most Acts, as nothing excludes the option for communities to acquire such rights (e.g. Tribal Land Act, Water Act and ARCA). These options to acquire community rights need to be piloted by IVP. It is essential that communities fully exploit the current options for community rights. Moreover, community rights need to be explicitly recognised resource management and conservation policies and legislation.

According to the amended Tribal Land Act, the Land Board determines and defines land use zones within Tribal Land after consultation with the District council. The granting of land rights must be consistent with the land use zones. The amendment does not indicate whether or not zoned land belongs to the tribesman and the purpose and use of zoned land. Presumably, the community is entitled to apply for land in zoned areas since they are located in tribal land. However, the Act and the Amendment do not expressly refer to community rights in zoned land and the nature of such rights. It would appear that the holder only has the user rights, as opposed to the rights of ownership.

The Water Act grants lawful access to water in a public stream, natural lake, pan or swamps for water stock, washing and cooking etc (section 5). It also empowers the Water Apportionment Board to grant water rights to individuals subject to certain conditions (section 15). Questions arise as to the nature of the rights and whether communities can be granted water rights in rangelands. It would appear that communities could utilise the Act to claim water rights in these areas, but this is not expressly stated in the Act.

*Limitations of rights over rangelands*

The right to use rangelands and rangeland resources is conditional. One of the conditions is that the rights should not be used for unauthorised or unintended purposes and that development should take place within a certain period. Non-compliance may lead to cancellation of land and/ or water rights under the Tribal Land Act and Water Act respectively. This rarely happens in practice, as monitoring and enforcement are weak.

The other condition refers to the duration of resource rights. There seems to be no uniformity and consistency in the length of resource rights. For example, leasehold rights for ranches are 49 years (renewable), while community rights over wildlife utilisation lasts for 15 years, broken down in three periods of five years. Generally, unless otherwise provided, communal lands governed by the Tribal Land Act is subject to a 99 year-lease period. This is the period within which the holder of the land should use the land and its resources. The lease specifies the rights and obligations both for the lessor and lessee with regard to the utilisation of resources in these areas.

Where communities would become in joint ventures with private companies or individuals, a reasonable period of tenure needs to be established to attract sufficient investment. The 15-year land lease for communities is too short to warrant substantial investment (unless for activities with quick returns). During this period the communities would be provided with the necessary training and education as it happens with CBNRM leases. A short lease period also discourages resource conservation, and encourages resource over-use (with long term costs). Thus, the lease period needs to be sufficiently long to warrant economic development and sustainable resource utilisation.

#### *Transferability of the user right of rangelands*

Generally, land including communal land cannot be transferred to the third parties by the grantee thereof. Any transfer has to be authorised by the lawful authority. For instance, the new section 13 of the Tribal Land (Amendment) Act empowers the LB to impose restrictions on the use of Tribal Land. In particular, section 13 gives the LB the power to authorise any transfer of Tribal Land. Similar provisions are found in the Water Act and the Agricultural Resources Conservation Act. It means that while strictly speaking transfer of the use of land is prohibited, under certain exceptional circumstances, the lawful authority can authorise the transfer. Therefore communities on rangelands can, subject to lease conditions, get permission from the LB to sublease or transfer part of the rights to use the land to third parties. Moreover, sub-lessees can further sub-lease their sub-leased rights, unless the lease agreement itself restricts or even prohibits further subleasing. In fact, communities currently have the right to sublease wildlife user rights to hunting companies. It is important to note that freedom to sub-lease increases the transferability and the value of these rights.

#### *Dual grazing rights*

Ranchers currently retain access to communal rangelands in addition to their ranch. Dual grazing rights make it difficult to manage communal rangelands, as access cannot easily be controlled, and ranchers can escape overgrazing on their ranches. The fact that one applies for, and is granted a ranch does not mean that (s) he ceases to be a member of the community. The rancher still remains a member of that community and, as one of the interviews indicated, (s) he does not lose use rights with respect to communal grazing area. Vice-versa, livestock owners that depend on communal rangelands do not have access to ranches. Dual grazing rights have been recognised as a problem since the 1980s, but there has been no solution to-date.

It is possible that in future ranchers will cease to utilise communal rangelands in order to meet EU- market conditions. This could solve the problem automatically, but it is uncertain whether this will actually happen.

### ***Enforcement of rights over communal rangelands***

Under customary law the occupier of any communal rangeland area can enforce his/her land rights through the chief or his/her representative. This recourse still operates despite the fact that chiefs have been excluded from dealing with Tribal Land<sup>7</sup>. This method is cost effective, not cumbersome and usually reconciles the parties or lead to amicable resolution of the dispute due to the reverence with which the community hold the chief. However, as indicated earlier the unwritten nature of customary and its lack of uniformity across tribal groupings are limitations on the enforcement role of the traditional system. Moreover, chiefs and their representatives lack basic training, skill and technical know-how on modern management techniques.

Several legislative instruments have provisions for enforcing individual's rights quite apart from the general procedure whereby the aggrieved party has the right to apply to the High Court for the vindication of the right. For instance, under the amended Tribal Land Act any person who is aggrieved by a Land Board decision has the right to appeal to the Land Tribunal. The Land Tribunal is a quasi-judicial body and allows individuals to enforce their rights under the Tribal Land Act. Thus, communities who are aggrieved by a Land Board decision have recourse to the Land Tribunal. The decision of the Tribunal carries the same weight as the decision of a court of competent jurisdiction such as the High Court. However, this procedure is long, cumbersome and costly, as it usually requires the services of a lawyer.

Similar enforcement mechanisms exist in other acts. The Water Act provides any person who is aggrieved by a decision of the Water Registrar to appeal to the Minister whose decision is final. The Agricultural Resources Conservation Act provides that any person who is affected directly or indirectly by a decision of the Board may appeal to the Minister.

## **4.3 Institutional rangeland management framework**

The institutional framework for the management of rangelands includes statutory and non-statutory institutions. The latter are those institutions that are not created by legislation and have no legislative basis, while the former are specifically created by legislation. Below, we review and analyse key institutions and options for CBOs with respect to management of communal rangelands.

### **4.3.1 Government statutory institutions**

The Land Boards, the Agricultural Resources Board, the Department of Wildlife and National Parks and the Water Apportionment Board are the key statutory institutions governing communal rangeland management. Their roles are as follows:

- The Land Board are in charge of implementing the Tribal Land Act, including communal rangelands. They prepare land use plans, allocate land and have the power to set ceiling for livestock ownership (see 4.2);
- The Agricultural Resources Board is responsible for rangeland conditions and rangeland resources, as far as they have been declared 'agricultural resources'. They can issue orders and regulations (see 4.2);

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<sup>7</sup> The Chief or a representative is, however, member of LB.

- The Water Apportionment Board is responsible for the granting of water rights and imposing of conditions with respect to the enjoyment of water rights (abstraction ceiling, drought adjustments);
- The Department of Wildlife and National Parks is responsible for the regulation, conservation, management and protection of wildlife resources in Botswana.

Apart from these four key institutions, several other institutions influence rangelands conditions and management. These include:

- The Herbage Preservation Committees and Subordinate Committees, responsible for control of bush fires;
- The Department of Sanitation and Waste Management: responsible for waste management that can affect community rangelands, particularly in the vicinity of villages and roads;
- The Tourism Industry Licensing Board grants licenses for tourist enterprises;
- The Town and Country Planning Board is responsible for granting of planning and development permissions.

#### **4.3.2 Non-government statutory institutions**

Non-statutory institutions play currently a minor, but increasing, role in rangeland management. They are particularly important for community-based resource management, and hence for IVP. Below, we review the different options, and consider the suitability of each option for IVP CBOs.

##### *Cooperatives*

Cooperatives have existed in Botswana for a considerable period of time, and are governed by the Cooperatives Societies Act. Cooperatives Societies are meant to promote the economic interests and welfare of its members within the overall framework of policies for national development. The Commissioner for Cooperative Societies, as the head of the Department of Cooperatives within the government, supervises the formation, registration and management of cooperatives and encourages cooperative development.

The cooperative society model could in principle be used for community-based management of communal rangelands, as the goal is similar (i.e. to promote economic interests and welfare for members) and the Commissioner would direct provide assistance to the society. Resource conservation would need to be added as an important additional goal.

However, the cooperative movement collapsed countrywide due to internal and external weaknesses such as strict government control, factionalism within the coops, disloyalty of some members, inadequate capital resources, and inadequate assistance and advice by government. This resulted in heavy financial losses for cooperatives, lack of accountability and transparency. This institutional form is therefore not recommended for the management of communal grazing rangelands.

##### *Company*

A company is another possible institution that can be considered for the community-based management of communal rangelands. The Companies Act requires that

companies are registered and subjects them to a strict regulatory regime, which is not attractive for rangeland management.

The company model is not suitable for community-based rangeland management for the following reasons:

- A company may be limited by guarantees and shares with complex procedures;
- Strict rules for its operations and reporting;
- Companies are profit-driven rather than aiming at improving welfare of all community members.

#### *Agricultural management associations (AMA)*

The Agricultural Management Associations Act Cap.35 governs AMAs:08. The Act aims at providing for the constitution, registration and control of the associations. The study has not been able to establish whether any such associations have been formed in the country.

The AMA legislation can be used as an institutional model for the community-based rangeland management for the following reasons:

- AMAs are required to have a Constitution spelling out the aims, structure and powers of the members of the association;
- AMAs can enter into contracts with third parties;
- AMAs can borrow money with or without security;
- The AMA-Commissioner in government has the power to control the association and give it direction. (S)He also approves any proposed change to its Constitution.

### **4.3.3 Non-statutory institutions**

Non-statutory institutions also provide institutional options for community-based rangeland management approaches. Most of the ones discussed below are outside government. Outside government, there is a wide range of stakeholders, including direct stakeholders such as communities and private companies involved in joint venture agreements, and support organisations such as NGOs and donors that play an important role in the management of rangelands.

#### *National Conservation Strategy Agency*

This government institution is created under the National Policy on Natural Resources Conservation and Development, Government Paper No. 1 of 1990 (hereafter the White Paper). The NCSA coordinates the implementation of the NCS and its Action Plan. It is in charge of environmental management and conservation in general terms. At present, the NCSA does not operate on any legislative basis (pending approval of the Environmental Management Act). The NCSA has not yet been accorded sufficient powers to enable it to effectively monitor, superintend and coordinate environmental issues.

#### *Syndicates*

Livestock farmers typically form groups or syndicates to apply for water rights. The disadvantage of syndicates is that they have no legislative basis that sets out conditions for their constitution, administrative structures and management. Moreover, they are loosely constituted comprising mainly of group of individuals closely related to one another. Many of them have not been properly managed. Moreover, it seems that

outside monitoring has not been provided to ensure that they are accountable and properly administered. For these reasons, syndicates are considered not suitable as a CBO model.

#### *Village Development Committee (VDC)*

The VDC is another institutional option for the management of rangelands. The VDC acts as a local government at the village level; villagers periodically elect its members. Some of the roles of the chiefs have been taken over by the VDCs.

Although they do not have any legislative basis, the VDCs act as a local government in the village, and members are accountable to the community through elections. Importantly, more often than not, Chiefs and LBs consult VDCs when allocating tribal land because the majority of them know the land and owners of the land in the area. VDCs are obviously involved in party politics, which might hamper community-based rangeland management. However, VDCs are identified as relatively strong institutions at most IVP sites, making them a 'real' possibility as an anchor for community-based rangeland management.

Current VDCs lack experience with community-based rangeland management. It is likely, however, that some can handle community-based rangeland management, while other cannot. Therefore, IVP need to establish and nurture relationships between the VDC and the CBO formed for rangeland management. It is currently not realistic to put VDCs in charge of community-based rangeland management. This could change in future if VDCs become the major local government institution with implementation capacity.

#### *Trust system*

A trust is a relationship in which one person is a holder (*trustee*) of an interest in the property but is subject to an *equitable* obligation to use or keep the property for the benefit of another person (*beneficiary*) or for some specified purpose (Shindler and Hodgkinson, 1984). Usually, there is a founder of the trust, who provides resources for the benefit of individuals or institutions. The founder could be a donor or a group or contributors.

The wildlife based CBNRM projects have all opted for the Trust model for the CBOs, usually on the advice of DWNP. In these cases, the communities themselves come together to establish a trust for management of a given natural resource. The aims and objectives of most of these trusts indicate that the trusts are mainly for the benefit of the members or communities in a given area, which is in line with the Draft CBNRM Policy, 2003. For instance, the Tebelopele Community Trust Notarial Deed of Trust for Shorobe specifically declares, inter alia, to create and increase employment opportunities in the village, thereby decreasing poverty and crime. Also, the Sankuyo Tshwaragano Management Trust for Sankuyo Village was created for similar purposes. Although the trusts are created differently from the original idea, they uphold the key requirement for the creation of trusts, i.e. identification of beneficiaries. It is ultimately the community that is supposed to benefit from the trust.

The use of trusts for community-based rangeland management has several advantages:

- It provides flexibility not found in institutional forms such as a company;



- Trusts are able to further education, training and capacity building in line with several government policies;
- Trusts are a democratic and transparent way of managing resources in that trustees work for the trust;
- A growing number of CBO Trusts already exist, and can be used for IVP projects too; and
- Communities have gained experience with Trusts.

The Trust model is considered to be suitable for community-based rangeland management.

#### **4.3.4 Analysis of the institutional framework**

Modern institutions such as the Land Board and Water Apportionment Board have been largely successful in allocating resource rights in line with statutory requirements. Examples include water and land rights as well as wildlife use rights. However, most modern institutions have been much less effective in resource management. Available instruments such as orders, regulations and resource ceilings have not been used. Moreover, problems exist with quota setting (e.g. wildlife), monitoring and enforcement (e.g. wildlife, non-use of land, license system for agricultural resources). There is need for a body to become overall responsible for rangeland management. The NCSA could assume this role once its coordinating role for resource use and conservation has legal backing through the forthcoming Environmental Management Act. However, there is also a clear role for non-government institutions to re-establish management of communal rangelands.

Non-government statutory and non-statutory institutions, including NGOs, have been minor players in rangeland management, but their role is growing, especially in association with community-based wildlife management. Community-based rangeland management will require further growth of such institutions, as:

- The CBO needs to select an institutional form;
- There will be need for CBO support from NGOs;
- There may be opportunities to involve multilateral donors and assistance opportunities such as the GEF.

The following weaknesses have been found in the current institutional structures for the management of communal rangelands;

- Dominance by (semi-) government institutions that have limited management instruments and fail to use available management instruments;
- Inadequate capacity of government bodies to manage rangelands;
- No or very limited participation of civil society (CBOs and NGOs) and the private sector;
- Institutional fragmentation, leading to gaps in management, different principles and rules for different resources and sometimes to resource conflicts (e.g. water and land);
- There is no comprehensive institutional approach towards rangeland management;
- Enforcement is problematic (e.g. quota, licenses, orders);

The Trust and AMA forms appear most suitable institutional form for CBOs. The trust form has the advantage that it has been in use for wildlife projects, hence communities are familiar with it.

It needs to be recognised that CBOs will need extensive support from government institutions as well as from NGOs. This support needs to be focused on the community needs, and needs to be coordinated to minimise the burden on communities (e.g. FIRM).

Where CBOs would engage in joint ventures with private companies and individuals, they need to be empowered to sub-lease their community rights. Moreover, they need to be supported in their negotiations with private sector partners to ensure that both parties benefit.

#### **4.4 Regulatory rangeland management mechanisms in other countries**

A number of countries in Southern Africa have adopted legislation generally on the protection of the environment. However, no particular legislation addresses the issue of communal grazing rangeland areas and their resources. However, in Namibia there is a specific legislation on communal areas. There is the Communal Land Reform Act No.2 of 2002 that aims at protecting communal land in the country. It provides for the allocation of rights in respect of communal land. It also gives power to the chiefs and traditional authorities over communal land so that they also have a role to play over communal grazing rangeland. Additionally, there is the Forest Act No.12 of 2001, which is designed to protect forest and forest produce in Namibia including those in communal areas.

In Zimbabwe, the law on environmental protection has been consolidated under the Environmental Management Act No 13 of 2003. This is an overarching Act, which creates a coordinated system of environmental protection and management. It establishes National Environmental Council with advisory role over all aspects of environment. It also establishes Management Agency, which not only focuses on management issues but also is tasked with formulating general environmental standards including rangelands. Significantly, this Act creates an Environmental Fund to enable local communities such as the CAMPFIRE to acquire funds for environmental management and conservation.

Similarly, in South Africa, there is the National Environmental Management Act No. 107 of 1998 aimed at providing for a co-operative environmental governance by establishing principles for decision-making on matters affecting the environment, institutions that promote co-operative governance and procedures for coordinating environmental functions exercised by organs of State. As in Zimbabwe, the Act envisages an integrated approach to environmental management. It also incorporates international environmental instruments into South African law. Likewise, Lesotho has enacted the Environment Act No. 15 of 2001. This is an umbrella legislation that protects the environment including communal rangelands.

As indicated elsewhere in this study Tanzania also has specific legislation in the names of the Land Act and Village Land Act, which were passed in 1999. The latter is directly on point in relation to community land tenure system. It provides the legal framework for

the management of communal or rural land and devolves authority to administer land and dispute resolution to local communities.

The above legislative instruments are indicative of the trend in other countries particularly in Southern Africa to enact laws to regulate management of communal areas. They adopt an integrated and coordinated system towards management of natural resources especially communal rangelands. These instruments can influence development of legislation and institutions in Botswana that aim specifically at the management of communal grazing rangelands.

#### **4.5 International conventions**

There are various international conventions that should inform national environmental standards in Botswana including the management of rangelands. Of particular significance are the UN-Convention on Biodiversity (CBD), Convention on Combating Desertification (UNCCD) and CITES. These instruments create a whole body of law aimed, inter alia, at the protection and conservation of communal areas. Botswana has ratified these conventions and as such is under an obligation to implement their standards in national law. They require states to adopt guidelines along international standards on management of communal areas. The standards in these conventions can influence the development of national rangeland legislation and guidelines.

The international conventions offer several opportunities for IVP:

- IVP activities further the implementation of the UNCBD and UNCCD, hence give credit to the project and approach. This requires the harmonisation of IVP activities and the National Action Plans;
- IVP activities can be supported (beyond the five year period) by assistance under these conventions (e.g. funding, technical assistance and research).

#### **4.6 Concluding remarks**

The discussion in the first part of this chapter shows that the regulatory mechanisms of communal rangelands are fragmented and inadequate. The lack of a composite law on the management and conservation of (community) grazing rangelands is a general weakness. In communal rangelands, grazing resources are hardly managed and protected. Veld products are only protected and managed when as far as they are declared agricultural resources. Wood resources that are not declared agricultural resources are not at all protected. Where rangeland resources are managed and protected, the measures are often not implemented or enforced (e.g. orders under the ARCA), further limiting management of rangeland resources. As a result of both factors, most rangeland resources are exposed to open access.

The various laws are not sufficiently specific towards defining rangelands, rangeland resources and communal rangelands. The nature and content of resource rights and responsibilities are often not detailed, and community rights are not made explicit. The forthcoming review of the ARCA should clarify which resources are covered (ensuring that there is no resource management gap) and what entitlements (including nature and content of rights) and responsibilities communities have. At the moment, communities

appear to have opportunities for acquiring community resource rights under existing laws.

Monitoring and enforcement of resource rights are problematic due, among others, to capacity problems of the institutions in charge.

Dual grazing rights still exist to-date, even though they discourage sustainable rangeland utilisation (both in communal rangelands and on ranches). Community-based rangeland management offers opportunities to resolve dual grazing right problems.

The discussion on institutions involved in rangeland management (section 4.3) showed that government institutions dominate rangeland management, in particular the Land Board, the Agricultural Resources Board, the Department of Wildlife and National Parks and the Water Apportionment Board. These institutions face capacity constraints, and coordination problems. In the absence of the forthcoming Environmental Management Act, the NCSA cannot assume its potential role of coordinating the use and conservation of rangeland resources. There is need for strengthening coordination and the management capacity of the lead government institutions.

The role of non-government institutions has been growing, but remains limited to-date. There is need to expand the role of these institutions, particularly in association with community-based wildlife management projects. The formation of community-based management institutions (Trusts and/or AMAs) could relieve the burden of government institutions such as the LB and ARB. Moreover, NGOs could assist with community support. Finally, joint ventures with the private sector would lead to greater participation of this sector in communal rangeland use and management. This would benefit communities and private companies alike.

## **5 REGIONAL EXPERIENCES WITH COMMUNITY-BASED RANGELAND MANAGEMENT SCHEMES AND CBNRM**

This chapter reviews experiences with community based grazing schemes (5.2) and community based natural resource management projects in southern Africa (5.3) in southern Africa, including Botswana. Each scheme or approach is briefly described, and analysed through a SWOT analysis; key lessons for IVP are identified. Further analysis is done in chapter 6, leading to specific recommendations.

The literature review in this chapter is not comprehensive because of the time limitations for this consultancy. Literature has been identified through literature searches in Botswana, various regional and international web sites the internet (e.g. DRFN, PLAAS, IFAD, FAO and IIED). and individual and focused on describing different rangeland management models and their implications for IVP-Botswana.

### **5.1 Community-based grazing schemes and projects**

Community based rangeland management was launched in the 1970s and 1980s, and has taken mostly the form of fenced enclosures (except in Lesotho). Few have been successful and sustainable. Consequently, community-based rangeland management has not gained the popularity that community-wildlife management schemes managed to generate since the 1990s.

#### **5.1.1 Zimbabwe's grazing schemes**

##### *Introduction*

Cousins (1988, 1992, 1993 and 1996), Mugabe et al. (2002) and Hamudikuwanda et al (2002) have reviewed Zimbabwe's grazing schemes. According to Mugabe et al (2002), stock control and grazing schemes in Zimbabwe date back to the colonial era. De-stocking met with great resistance during the colonial era, and early grazing schemes in the 1970s failed due to population growth and the liberation struggle. The discussion in this section is mostly based on these sources.

##### *The current grazing schemes*

The modern grazing schemes (GS) were mostly initiated during the 1980s. The objectives of the GS were threefold: 1. improve livestock productivity in communal areas; 2. conservation of grazing resources; and 3. prevent irreversible land degradation. It was assumed that communal livestock productivity was low due to poor management and that high stocking rates caused rangeland degradation. Both assumptions were questioned in the 1990s. Correct measurement of productivity of rangelands and communal livestock production, include multiple products such meat, milk, manure, draught power, savings and cultural values. Rangeland conditions are strongly determined by rainfall conditions that tend to prevent ever-increasing stock numbers.

The GS had a 'standard prescription' of fenced rangelands and rotational grazing and resting. The fenced areas were exclusive for GS members, who selected a Grazing Scheme Committee (GSC), with representatives of traditional authorities. The GSC control grazing management through formal by-laws or informally agreed rules among members. By –laws also stipulated financial contributions and other membership responsibilities. The GS received substantial external support from agricultural extension and donors.

### *Performance*

Mugabe et al (2002) reviewed the governance of five GS in Masvingo province, and concluded that most were doing poorly, and one failed completely. There is no evidence that any grazing scheme led to higher livestock productivity or improved grazing conditions. Mugabe et al (2002) suggest that the GS are in decline rather than making progress.

In one scheme labour had to increase again after the fence collapsed. This 'robbed' the GS of its main benefit, as perceived by members. Even if the fence would not have collapsed, this attitude makes it unlikely that livestock productivity would increase.

By-laws were either not developed or enforced with sanctions. In another case, an externally developed set of guidelines was never followed.

Common problems of the GS are (Mugabe et al, and Hamudikuwanda et al (2002):

- Limited actual choice for communities due to the prescriptive model;
- Community conflicts (between members and non-members) and inadequate conflict resolution mechanisms;
- Boundaries are known but not respected;
- Interventions are not based on the local conditions;
- Poor definition of benefits and beneficiaries;
- In transparent or unequal benefit distribution;
- Wealthy cattle owners dominate decision-making due to lack of procedures and governance;
- Unclear link with traditional authorities; and
- Top-down approach with a domineering role for donors and agricultural extension. For example, many initial inputs were supplied free of charge, and are not perceived as costs by the community;

Below, a summary of the Strengths-weakness-opportunities-threats (SWOT) analysis of GS is made (Table 5.1). Clearly, the GS model appears to have mostly weaknesses that affect its performance. Continued dependency on external assistance must have further weakened the GS performance in recent years of political turmoil and withdrawal of donor assistance. The major opportunity would be to anchor GS in the Campfire approach. The parallel with Botswana would be to link IVP grazing models with the on-going CBNRM approaches.

**Table 5.1: SWOT of Zimbabwe's grazing schemes**

<b>Strengths</b>	<b>Weaknesses</b>
The GC is a shift from the de-stocking focus of past interventions Some local capacity building (GSC)	The model is prescriptive and offers little choice to communities. Most interventions are poorly adjusted to local conditions The model has not clearly demonstrated the benefits Dependency on external support Questionable assumptions about productivity and rangeland degradation Appears unsustainable
<b>Opportunities</b>	<b>Threats</b>
Link up with the Campfire movement	Political instability Dominant role of District Councils

**Lessons for IVP:**

1. Top-down, prescriptive grazing interventions do not work well;
2. The benefits of fenced (community) ranches other than saving labour are not proven; without clear benefits and benefit distribution mechanisms community based projects have no future;
3. Exclusivity and membership may be necessary, but are a source of conflicts between members and non-members;
4. While extension and donor support is necessary, it often affects the sustainability of projects; and
5. Community based projects need to determine the position and role of traditional authorities.

**5.1.2 Botswana's communal grazing cells**

According to Odell and Odell (1980), group ranches were planned under the 1975 Village Area Development Programme (VADP). The forty planned ranches never materialised due to capacity problems and underestimation of the difficulties organising groups to manage cattle. In response, the idea of group ranches was abandoned in 1979 and replaced by broad-based support for communal area development, including livestock activities.

Despite the above, communal grazing cells (the Botswana version of Zimbabwe's grazing schemes) were conceived in 1978 through the Livestock Development Project 2 (LDP2) financed by the World Bank. The objectives of the communal grazing cells were to demonstrate improved range condition and cattle performance through grazing management and control of stock numbers.

A grazing cell was 'a ranching unit that is communally grazed, operated and owned by registered members of an Agricultural Management Association, and which has the objective of improving range conditions and animal production (Sweet, 1987, p. 3).

The cells were to be located in overgrazed areas around villages. Rotational grazing, parasite control, and better access to grazing, water and other inputs were measures to achieve improved livestock productivity and rangeland conditions. Sweet (1987) observes that the model was taken from commercial areas, but 'trials on APRU ranches had failed to demonstrate any consistent advantage of rotational over continuous

grazing (p. 1). It was introduced based on alleged benefits obtained in Zimbabwe and South Africa.

Twelve communal grazing cells were planned spread over three major ecological zones of Botswana. The cell was relatively small (2340 ha), fenced and hexagon-shaped around a water source meant for 300 head of cattle. The grazing cells were communally owned, and stocked with cattle from the community. They were intended for small cattle owners without sufficient cattle to participate in the group ranching scheme.

Members would be registered as an Agricultural Management Association (AMA), and select a site (to be approved by the Animal Production Research Unit or APRU). The rest was mostly top-down:

- government would develop a constitution and annual management plan for the AMA;
- APRU would provide a ranch manager for five years, while the manager appointed by the AMA would be trained;
- Construction costs for the fence, borehole, handling facilities were funded under the LDP II, while government paid the interim manager.

AMA-members were charged a levy of P10 to P12 per head per annum to pay for the operational costs other than the manager (e.g. maintenance, labour wages and purchase of consumables).

#### *Performance*

The grazing cell scheme failed as only one grazing cell was ever established. This cell had many problems during the first five years, and collapsed soon afterwards. Common problems included the withdrawal of cattle by members (at one point only 88 cattle were left inside the ranch), fee payment, unwillingness to invest revenues and difficulties meeting the management plan. Most communities were not interested, in part because they could not identify communal areas that would be used for exclusive use by members at the detriment of non-members.

On the positive side, the cell had much better rangeland conditions than outside, at least partly due to the low grazing pressure. The low stocking rates imply that outside stocking rates have increased and risks of overgrazing grew.

Farmers withdrew cattle from the scheme to avoid payments, and because they realised that the weight gains of cattle in the cells would quickly disappear after animals were re-introduced in communal areas. In other words, the benefits were not lasting, unless the animals were sold directly from the cell.

According to Bekure and Dyson-Hudson (1982), Sweet (1986, 1987) and Arntzen (1998), a wide range of social, organisational and economic factors have led to the failure of the approach, including:

- Overgrazing was not perceived as a priority problem by livestock farmers and communities;
- The cell did not recognise the importance of livestock outputs other than beef;
- Farmers do not perceive sufficient benefits to warrant reducing stock numbers or paying grazing fees;



- Communities had difficulties forming effective groups, and granting exclusive grazing rights to that group;
- Introduction of too many alien concepts and interference in local grazing systems; and
- Individual farmers are reluctant to hand over management of their cattle to a group.

A SWOT analysis of the grazing cell scheme is summarised in Table 5.2 below.

**Table 5.2: SWOT analysis of Botswana's communal grazing cells**

<i>Strengths</i>	<i>Weaknesses</i>
<p>The scheme was institutionally founded in policies-programmes</p> <p>The provision of water through boreholes encouraged farmers to remain in the scheme</p> <p>Training of manager in five years gave the group members enough time to learn</p>	<p>Farmers did not perceive overgrazing as a problem</p> <p>Communities do not recognize grazing land as a finite resource, hence the unwillingness to limit stock numbers</p> <p>Shortage of extension staff</p> <p>Inexperience of rural people in cooperative venture and groups</p> <p>People did not wish to pay the cattle levy</p> <p>Few AMA members and insufficient literacy</p> <p>Communities were reluctant to allocate part of overcrowded communal area for the exclusive use of a few members of the community.</p> <p>Mostly top-down approach with limited community choices. In essence, the choice was to develop a cell or not.</p> <p>Most costs were born by LDP 2 and government. The sustainability of the cells was therefore doubtful from the start.</p>
<i>Opportunities</i>	<i>Threats</i>
<p>CBNRM and community-based rural development may offer new opportunities for community-based rangeland management schemes</p> <p>Community ranches can be established under the 1991 NPAD</p> <p>Communities are now more experienced with community-based organisations and projects</p>	<p>The history of failure of community ranches is known to communities, and will hamper any future activity.</p>

#### **Lessons for IVP**

1. Overgrazing is not perceived to be a major community problem;
2. Community participation is essential;
3. Communal rangeland schemes must address the conditions, attitudes and needs of communal livestock farmers;
4. Community participation is not sustainable if there are not net benefits; and
5. Membership and exclusion of non-members create problems of benefit distribution;

#### **5.1.3 Swaziland's grazing land management demonstrations (GLMD)**

Range degradation, declining carrying capacity and soil erosion have been concerns since the 1940's in Swaziland. This situation led to the introduction of various grazing schemes, but most of them failed to bring positive results.

According to Critchley (1995), the Grazing Land Management Demonstrations (GLMD) were set up in the 1980's to improve grazing land practices on communal land; to demonstrate that planning for, and management of, such schemes benefits from guidance by qualified range management professionals; to discourage traditional beliefs and practices, which are detrimental to livestock productivity; and finally to demonstrate that proper range management, productivity of both range and animals can be greatly enhanced, and rural incomes rose as a consequence.

The GLMD was a government initiative that was sold by extension staff to the village chiefs, councillors and interested individuals. Subsequently, small parts of grazing areas, ranging between 20 and 125 ha, were identified and fenced for the grazing demonstration. The government provided free fencing material and determined the carrying capacity. The GLMD committee then determined how many livestock each member could bring, usually three or less. Members were charged annual membership and a monthly management fee. Management focused on rotational grazing, breeding, veterinary care and control of stocking densities. The scheme aimed at increasing beef production by selling high quality animals.

The GLMD committee was responsible for all management issues while extension staff offered advice. Each committee developed rules and regulations, which were strictly applied and followed. Government would offer technical advice to the GLMD committee. In each case, the committee would be elected from the participating villages to manage a specific fenced ranch.

There were fourteen schemes but five schemes have been abandoned due to inter group rivalry (Critchley, 1995). It is not known how many schemes exist today.

#### *Performance*

Within the fenced and management areas, badly damaged range has been successfully restored, with gullied land now generally stabilized and vegetated. Average basal cover of the veld is said to have increased from less than 50% to 80%. The condition of cattle in the scheme is much better than those outside the scheme. Calving intervals are shorter, and calving percentage has been raised from 30% to 60%.

In so far as the GLMDs have been successful, this is attributed to the established line of communication and a *rapport* with the land users and chiefs, something that makes the institutional successes more important than technical ones (Chritchley 1995).

A SWOT analysis of the scheme is summarised in Table 5.3.

**Table 5.3: A SWOT analysis of Swaziland's GLMD**

<b>Strengths</b>	<b>Weaknesses</b>
The GLMDs have an established line of communication and consultation with the land users and the chief	The GLMD initiative has never been fully monitored or systematically evaluated
The scheme adopted a bottom – up approach, that made it acceptable to members.	The initial cost of fencing material presents a considerable burden to potential associations, who are reluctant to invest their own resources where other groups have received grants.
The members had direct benefits from the scheme in terms of fence maintenance and veterinary services provided through breeding cows fees.	Those community members who fall out of the schemes resist the development of further ranches from which they might be excluded, because every new scheme would squeeze the existing livestock onto less and less land.
Members were obliged to work under the set rules and regulations by the agreement that each member had to sign.	By reducing the stocking pressure on just one part of the range, the other areas are put under increasing pressure.
The association enjoys the technical support from government.	The scheme constitutes a single purpose commercial beef enterprise instead of multi purpose system including, milk, draft, and manure producing herds.
The scheme had a good integration of women.	The scheme is faced with inter-group rivalry.
The number of livestock per ranch was decided on the basis of the carrying capacity of the ranch, avoiding overstocking, overgrazing and soil erosion.	
<b>Opportunities</b>	<b>Threats</b>
Expansion of the model to include the whole community (less rivalry and resistance) Attraction of donors to expand the scheme into management of other natural resources and forms of livelihood.	Response from non-members Absence of formal legislation making exclusion difficult

Source: Critchley, 1995

#### **Lessons for IVP**

1. An external initiative can be taken up by communities, if they have choice, rights and responsibilities;
2. Government/Donor support is essential at the initial stages of community based programmes;
3. It is very important to assess the impact of an initiative on the excluded community members and find ways of making the programme acceptable to the whole community;
4. Pilot projects need to integrate into existing policies and programmes, if it is to go beyond the pilot period.

#### **5.1.4 Lesotho's grazing associations**

Grazing Associations in Lesotho were first established in 1983 by the Government of Lesotho and USAID in order to solve problems of open access communal rangelands. The specific goals for establishing Range Management Areas (RMAs) under GAs were to (Hunter, et al, 1991);

- Increase the productivity and income of rural livestock producers;
- Facilitate commercialisation of the extensive livestock industry and satisfying the subsistence needs of rural households;
- Allow management of renewable natural resources in a manner, which is sustainable and socially acceptable to rural Basotho.

Initially, the programme offered tractor ploughing services, emergency transport and other types of support. At present, the scheme only offers improved grazing and

livestock services. By 1994, nine Grazing Associations were established covering 10% of the rangelands of Lesotho (Turner, 2003).

Membership to the Grazing Associations in Lesotho is restricted to local residents only, with clear distinction between members and non-members. There were two summer grazing areas, each for five villages with a grazing manager and range rider. In winter, all villages use a common winter grazing area (Buzzard, 1993).

The Association operates under a constitution and policy, with a management plan based on rotational grazing. The management plan specified details and operational modalities of the rotational grazing programme, which covered a subscription fee of M 0.50 (US\$ 0.15) per animal unit (6 small stock = 1 animal unit). The management plan was strictly implemented and farmers who violated the management plan would have their livestock impounded until a penalty fee is paid. The penalty fee ranged from M 4.00 to M 9.00 per bovine and from M0.60 to M1.50 for small stock. The collected fees are used to pay staff salaries.

The GAs were initially funded by USAID donor agency and enjoyed technical support from government. The executive committee for the GAs is made of two representatives from each participating village together with the chief/headman from each village. The committee employed two employed GA managers and two ranch riders.

The Land Husbandry Act confers rangeland management authority upon the Grazing Association. However, the GA's status is not clearly spelled out in law, hence they become vulnerable to changes in policy direction. This has already led to loss of communal rangeland to the National Parks. Grazing Associations lack the social authority to enforce controls. Diverse livestock and range management strategies make widespread adoption of a communal management scheme problematic.

### *Performance*

The programme is considered to be successful by Ivy et al (1994). The reduction of stock numbers through expulsion of outsiders resulted in an increase in ground cover in RMA from an average of 65.3% to 69.1%. The range conditions improved considerably, with plant species diversity increasing by 42%. With vegetation given time to recover for control stock numbers, animal condition improved and small stock reproduction improved by 50% while mortality declined from 40% to 10%. Cattle value at auctions in the RMA is higher than non-RMA cattle. There are no data about the grazing land productivity. Better, but fewer animals could lead to the same or even lower productivity than before!

A SWOT analysis of the programme is summarised in Table 5.4. Ivy et al (1994) have described the GA model as a success to an extent that it is a key component of the current sustainable development programme for the mountain areas funded by a loan from IFAD. Pointing at the results above, it can be said that the programme achieved its objectives.

**Table 5.4: SWOT analysis of Lesotho's GMAs**

<i>Strengths</i>	<i>Weaknesses</i>
The clear boundaries reduced the conflicts between local and non-resident farmers	The model assumes that all local residents would be members, but does not take care of those who were not members due to non-payment of subscriptions or opted not to join the scheme
The associations were legal recognised, thus giving it the authority to discipline those who violate the rules of the association.	Some farmers may be adhering to the rotational grazing scheme mainly in fear that their livestock will be impounded and not because they saw the programme beneficial to them.
The associations enjoyed the support of the chiefs/headman	The nation is dependent much on livestock for livelihood, which makes it difficult to test the effectiveness of the model without alternative sources on which to apply it.
The project provides economic incentives to farmers through breeding, animal health and marketing services	There is no assurance that the project would be sustainable without government support
The association enjoys the technical support from government, though it had been thought that at one point the association should be independent.	The committee is made up of holders, who have very limited experience in collective decision-making and are subject to factional infighting.
Transparent use of collected fees and subscriptions	
<i>Opportunities</i>	<i>Threats</i>
Expansion of model to other resources and sectors Attractive to donors	Non-members resistance Unsure government support

#### *Lessons for IVP*

1. Fencing is not a necessary condition to improve communal rangeland management;
2. Boundaries need to be defined and respected;
3. Membership is an effective method for exclusion and control over benefits and costs. People will only join and contribute financially if they perceive net benefits.
4. The costs of exclusion can be high. Exclusion creates social community conflicts and may have adverse impacts on rangelands elsewhere.
5. Rotational grazing and herd mobility can be effective methods to improve rangeland conditions.
6. A firm supportive policy framework is necessary for the sustainability of community-based rangeland management approaches.

#### **5.1.5 Namibia's Northern Regional Livestock Development Project**

The Northern Region Livestock Development Project has introduced a community-based component in 1997. The overall aims of the project are to improve livestock outputs and to ensure sustainable use of rangeland resources. In 1997, the goal of the rangeland component of the project became that communities develop and implement initiatives that improve the sustainability of rangeland resources, and through this, demonstrate methods, techniques and procedures for wider application (Kruger, 2000a, p. 5). Communities would be fully involved in planning and implementation of sustainable resource management; their management capacity would be strengthened and their understanding of livestock production systems, their constraints and intervention possibilities would be improved. The rangeland component of the project has three areas of intervention: water provision, fodder and rangeland management. In his term review, Kruger (2002a) argues that water provision has been most successful even though the approach was technocratic. A total of 39 water points were developed and subsequently water point committees were established to run the water points. Some water points did well, other performed less. Obviously, some communities are not immediately capable of running water supply. The siting of water points was not linked to rangeland management issues.

### Performance

According to Kruger's evaluation, rangeland management had made little progress, in part livestock owners did not consider rangeland conditions and productivity a major problem. This perception reflects lack of forward-looking strategies (with illegal fencing, communal rangelands will face increasing pressure in future) or it could reflect resignation with the fact that increased livestock pressure is mostly beyond the control of communities. The component developed a few demonstration plots of grazing resting and a few pilot fodder plots. Community based rangeland management strategies have not been developed and tested. The lack of legal rights over rangeland resources is a major problem for communities, as they cannot exclude outsiders (to be addressed in the Communal Land Bill). Key conclusions with respect to communities are:

- The project has had little impact on social mobilisation and empowerment of local community structures;
- There has been no increase in livestock production or improvement in rangeland conditions.
- There has been no direct impact on the financial status and food security of households and communities. Community gardens, developed without consultation to check communities interests, have had little success;
- There is need to link the implementation of this project closer to mainstream CBNRM approaches;

Kruger (2000a) recommends several measures for livestock management: testing of additional food sources (crop residues, fodder, rented grazing and hay), altering livestock movements, improve animal health, focus on indigenous livestock breeds, assess rangeland conditions and marketing needs. He further recommends the adoption of the FIRM approach and the establishment of a conducive policy/ legal environment that guarantees communities exclusive and secure user rights, including grazing resources.

### Lessons for IVP

1. Absence of a legal framework hampers community management options;
2. Establishment of an integrated support service (e.g. FIRM) is useful when it focuses on community needs.
3. Overgrazing is not necessarily perceived as a priority problem for communities. This makes it difficult to design and implement and rangeland/ livestock plan of action;
4. Water provision is usually a priority. Communities can be charged with water point management, but require training and support;
5. If projects fail to improve livelihoods and/or food security, it will be difficult to attract and keep community interest;

### 5.1.6 Concluding remarks

The nature and scope of livestock projects has significantly changed in time. De Haan (1994) distinguishes four partly phases in livestock projects design:

- The *ranching phase* from the mid 1960s to early 1980s. The western ranch model was transferred to semi-arid Africa, involving large capital investments and usually heavy government involvement (LDP and TGLP ranches);

- The *range/livestock projects* from mid 1970s to late 1980s focused on communal areas through development of infrastructure and adjudication of grazing and land rights, sometimes to groups (e.g. SLOCA, grazing cells and schemes);
- The pastoral association phase. This overlaps with the previous phase, but there is more emphasis on herders' management services and less rigid focus on overgrazing and land tenure;
- The integrated natural resource management project phase. Examples are the recent phase of NOLIDEP in Namibia.

In Botswana, phases 1 to 3 are found, but the thrust of agricultural policy has remained in phase 1, i.e. ranching. SLOCA represents phase 2, and IVP could be labelled a cross between phase 3 and 4.

De Haan (1994) attributes failure of many WB livestock projects to a combination of several factors. Firstly, governments tend to dominate the livestock support framework, often with a market monopoly and government controlled prices. Secondly, grazing and land rights are too rigid, mostly following the privatisation and rotational grazing model. There is not enough attention for the livestock mobility requirement and for opportunistic stocking strategies (Sandford, 1990). Thirdly, institutional weaknesses exist in the implementation agencies, particularly lack of multi-disciplinary skills. A workshop on rangeland management strategies in semiarid environments, added another factor (Ngaïdo et al, 2002, p. 51): 'Successful local level natural resource management requires better links with other actors in the national system and should be part of an overall development strategy'. Most livestock projects are not integrated in rural development programmes.

Recognising that in the early 1990s, the results of phase 4 projects could not yet be assessed, de Haan identifies four issues that require more attention: herder organisation (capability and sustainability assessment is poor), drought contingency measures (e.g. fodder banks, marketing provisions and insurance/ drought relief measures), the role of the public sector (e.g. division of responsibilities, top-down attitudes) and cost-recovery/ sustainability.

The above factors appear to apply to southern Africa, and to Botswana as well, and therefore contain important lessons for IVP: capacity and sustainability assessment of CBOs, partnerships with adjusted role for stakeholders (e.g. new less government and more local communities, private sector and NGOs), more flexible resource rights and built-in drought coping measures, a multi-disciplinary approach and integration of livestock activities in rural development programmes and planning.

## **5.2 Community-based natural resource management programmes and approaches**

Most CBNRM programmes and project started in the 1990s. Most southern African countries now have some form of CBNRM approach, after the pioneering work done by CAMPFIRE in Zimbabwe. Botswana started in the early 1990s and Namibia followed in the mid 1990s.

### 5.2.1 Campfire<sup>8</sup>

The Communal Areas Management Programme for Indigenous Resources (CAMPFIRE) aims to increase local benefits of natural resource use and to promote towards sustainable resource use by rural communities. An additional objective of CAMPFIRE is to train people in wards and villages to become competent resource management authority. While the programme mostly deals with wildlife resources, it is meant for all renewable resources. The community users may be a village, a ward or a group of wards depending on the local conditions.

CAMPFIRE devolves resource allocation power from central government to district councils after they have become a so-called Appropriate Authority (AA), and subsequently to communities or wards. AA grants full wildlife user rights comparable with some checks to ensure that these rights are not abused. In turn, AA pass on these rights to communities or wards.

Households that are adversely affected by resources would be compensated and the remaining net benefits would be distributed according to a fixed formula between the RDC (max. 15%), resource management (35%) and the local communities (at least 50%). The destination of local community benefits is determined by the village ward committee, but in most cases income is spent on the development of community facilities as well as income supplements. Communities should receive at least half of the revenues.

CAMPFIRE now covers fifty-two Councils, compared with only two in 1989. In the wildlife producing districts, local communities have set aside large tracts of wild land and have adopted wildlife production systems, both consumptive and non-consumptive within their areas based on free ranging game.

CAMPFIRE typically operates in marginal agricultural regions in the north and south. In these areas, wildlife utilisation is considered to be a better development option than livestock or crop production.

The CAMPFIRE approach works through three levels of committees:

- *District CAMPFIRE Coordinating Committees.* These are sub-committees of the Rural District Councils' Conservation Committees formed to strengthen communication between the RDCs and their CAMPFIRE wards. Their tasks include resource use monitoring, developing district plans, overseeing management of CAMPFIRE assets, identification of training needs, annual campfire budgeting and coordinating quota setting for the entire district.
- *Ward level CAMPFIRE Committees.* These committees are democratically elected committees whose membership comes from village wildlife committees. Their task is to co-ordinate village wildlife committees, and to plan and implement ward projects. The ward committees coordinate vertical and horizontal management structures and systems for the effective administration of CAMPFIRE.
- *Village CAMPFIRE Committees:* These form the basic units for CAMPFIRE and natural resources management. Basic management issues like control of veld

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<sup>8</sup> This section is based on contributions made by Dr. Mazambani to the Botswana CBNRM review (Arntzen et al., 2003)



fires, apprehending poachers, problem animal control and participating in of quota setting, are handled by the Village Committee.

### *Performance*

CAMPFIRE has contributed towards sustainable resource management by the demarcation of wildlife areas, mostly informal but sometimes fenced. This has led to stabilisation or increases in valuable species such as buffalo and elephant. Poaching has decreased and the trophy quality is maintained. After 1998, CAMPFIRE covered a range of other natural resources such as eco-tourism, fisheries and wood resources, but grazing resources were not incorporated. Communities also got involved in resource surveys and monitoring.

The socio-economic impacts include awareness raising, income and employment generation. The benefits have led to a more positive attitude towards natural resources among local people. As a result, communities have developed by-laws for resource access, erected fences where necessary, and established committees that are responsible for resource monitoring and audits.

CAMPFIRE has generated substantial and rising revenues for the programme and communities. The number of households benefiting from CAMPFIRE cash dividends increased from 7,861 in 1989 to over 80,000 in 2001, but the average earning per household remained low (ZW\$ of 537.41 per household per year or US\$14.02). Thus, CAMPFIRE is a secondary rather than primary source of livelihood (Bond, 2003).

The greater value lies in the secondary community benefits such as schools, clinics and community grinding mill and shops funded by CAMPFIRE revenue as well as in empowerment and capacity building. Capacity was built for basic organisational skills, especially bookkeeping, recording and maintaining minutes of meetings and bank accounts, natural resource monitoring, resource management skills and development of procedures (e.g. by-laws, constitution

### *Policy and legal environment*

Legislation confers considerable authority and power on Rural District Councils. More recently, some wards have formed Trusts that can obtain wildlife rights directly. The policy and legislative framework within which CAMPFIRE operates creates numerous local institutions that operate in parallel, overlap and compete with each other for power and access to financial resources.

According to the Communal Land Act (1982), the State owns communal land and RDCs administer the land. The Rural District Council Act (1988) gives the councils power to conserve natural resources, permit grazing and cultivation, develop land use plans and make byelaws for the protection of natural resources. The councils may issue permits for catching fish, hunting, cutting firewood, cutting grass and collecting honey. The Communal Land Forest Produce Act (1984) restricts the use of forest products to "own use" and excludes use of products from protected forest areas and areas where a license to cut trees has been granted to others. According to Chitsike (2000, p.11) under the Act, "without a permit or license, virtually any use of woodland is illegal". The Environmental Management Act (2002) establishes a general legal foundation for all environmental laws based on sustainable development and addresses inconsistencies, overlaps and duplication in environmental and natural resource legislation. The Act contains limited references to devolution and decentralisation, and does not provide for

empowering sub-district levels. The Traditional Leaders Act (2000) provides for Ward and Village Assemblies that would “consider and resolve” all issues relating to land, water and other natural resources. This statement is somewhat ambiguous with regard to actual decision-making powers of the Assemblies. Further, the Act does not provide land rights to the Assemblies and it does not give them any legal status beyond being sub-committees of council.

A brief SWOT analysis of CAMPFIRE is given in Table 5.5. Perhaps, its most important weakness is the limited devolution of power, mostly to RDCs. Major strengths include its long experience and valuable lessons learnt by communities and other stakeholders and the revenue sharing mechanisms and formula. Political turmoil threatens CAMPFIRE, and is beyond control of the communities.

**Table 5.5: SWOT analysis of Zimbabwe's CAMPFIRE**

<i>Strengths</i>	<i>Weaknesses</i>
Substantial community benefits supplementary household benefits Improved resource management Capacity building and empowerment CAMPFIRE is broadening its resource scope Strong support network	RDC retard devolution of rights to communities No legislation to support devolution to communities Producer communities are not member of CAMPFIRE association Competition among service providers Lack of investment in productive infrastructure and marketing Non-material benefits are probably greater than material household benefits
<i>Opportunities</i>	<i>Threats</i>
Option to form village trust and receive direct AA status and benefits for communities	Loss of experienced staff among service providers and RDCs due to political instability Investor scepticism Bad publicity of country

Source: expanded from Arntzen et al, 2003.

### *Lessons for IVP*

1. Communities are able to manage local natural resources;
2. An increase in local benefits contributes towards a change in resource attitude; in other words, increased benefits are a tool of resource conservation;
3. CBNRM activities are a secondary source of livelihood. Benefit creation (direct and indirect) and distribution are critical components of CBNRM;
4. CAMPFIRE is most sustainable where business partnerships have been developed between communities and the private sector; and
5. Long term programmatic support is far more important than short-term consultancy support and training; and
6. Community projects such as CAMPFIRE suffer from political turmoil and withdrawal of donor support.

### **5.2.2 Namibia's conservancy programme<sup>9</sup>**

Namibia's CBNRM programme started in the mid 1990s, and developed in a context that needed drastic reform after the colonial injustices. Communal areas were small and characterised by low farm productivity, poverty, household food insecurity and poor nutritional status. After Independence, large parts of communal areas have been

<sup>9</sup> This section is based on contributions made by Dr.E. Terry to the Botswana CBNRM Review (Arntzen et al, 2003), Jones, 1999 and NAPCOD documents.)

illegally fenced by wealthy farmers, and held as reserve grazing resources (Kruger, 2002b). The shrinking pool of unfenced communal rangelands and the need to lift people out of poverty is expected to increase livestock pressure on the remaining communal areas.

The conservancy programme aims to protect biodiversity and maintenance of eco-systems and life support processes through sustainable use of natural resources for the benefit of rural communities.

In the mid 1990s, it became possible for local communities to gain exclusive resource use rights if they formed a common property institution called a 'conservancy'. The conservancy must:

- Be legally constituted;
- Have clearly defined boundaries agreed by neighbouring communities;
- Have an equitable benefit distribution plan;
- Have a defined membership; and
- Have a committee that is representative of the conservancy members.

The conservancy approach started with wildlife resources, but it is currently diversifying into forests, fisheries, veld products and tourism. Policy and legislation now permit the establishment of community forests, forest management agreements between conservancies and government and co-management for fisheries. In the water sector new policies enable communities to manage and own their own water points through water point committees. A new land policy provides for categories of landholder including bodies such as wildlife conservancies, community forest management bodies and Water Point Associations. While this is a positive step, a proliferation of CBOs may result at the risk of inefficient use of limited local capacity and fragmented natural resource management.

An integrated extension approach called Forum for Integrated Resource Management (FIRM) has been developed. This approach puts the initiative for identification of service needs with the CBO, and stimulates coordination and specialisation among service providers. Table 5.6 outlines the approach and its strengths and weaknesses.

The wildlife conservancy programme has grown very rapidly since the mid 1990s. There are over thirty conservancies with another thirty in development. Some 74,000 square kilometres are currently demarcated as conservancy areas with 38,000 people registered as members (usually adults over 18) and an estimated 150,000 people benefiting from the conservancy programme.

Some conservancies have signed joint venture contracts with private companies to operate tourism lodges. Some existing lodges may develop formal benefit-sharing agreements with conservancies. Seven conservancies have negotiated trophy-hunting agreements, which effectively lease hunting concessions within their conservancy areas to professional hunting outfits.

A wide range of service providers supports conservancies, including NGOs, Government department and the University of Namibia. All support organisations are members of the

national CBNRM coordinating body NACSO. One NGO (NACOBTA) acts as a coordinating body for tourism and enterprise development for conservancies.

### *Performance*

Although the programme is relatively new, it appears to contribute towards resource conservation. Wildlife resources in conservancy areas is increasing and poaching has declined. Conservancies are controlling human-wildlife conflicts, request re-introduction of game and maintain wild habitat. Wildlife and tourism are increasingly appreciated as legitimate and productive land uses. Conservancies are developing integrated land and resource management plans, developing wildlife and problem animal monitoring systems and carrying out game censuses.

The direct conservancy income has risen to N\$ 3.2 million in 2002. However, conservancy income varies widely with the highest earning conservancy getting N\$ 960 000 or more than a quarter of the total income. Campsites (27%), trophy hunting and meat (22%), joint venture tourism (20%) and selling of thatching grass (10%) are the main sources of income (NACSO, 2003). A few conservancies have distributed income to their members, the highest payout being N\$630 per member. This may not be much, but must be related to the low household incomes. Nonetheless as in Zimbabwe, conservancy benefits are supplementary rather than primary sources of livelihoods.

Other conservancy benefits include:

- It provides opportunities to manage other resources such as grazing and land;
- Employment
- Capacity building (technical skills and managerial experience);
- Feeling of ownership of the plans and responsibility for the natural resources; and
- Confidence to negotiate with government, donors, and the private sector, and to liaise with regional councils and line ministries.

The conservancy programme has had spin-offs in other sectors too. A community approach has been adopted for village water points, and receives more attention in livestock projects too (see 5.1.4).

Namibia has a strong community-based movement that comprises wildlife, tourism and veld products (conservancies) as well as rural water points. Table 5.7 summarises the major strengths and weaknesses.

Table 5.6: Strengths and weaknesses of the FIRM approach in Namibia

A local Forum for Integrated Resource Management (FIRM) is established through the following steps:

- Organisation of a community forum / meeting
- Community identifies their needs and prioritise development requirements;
- Community prepares a holistic annual plan
- Community invites service providers and donors to support selected activities.

FIRM coordinates and direct service provision to CBOs.

Strengths:

- Platform for integrated local planning;
- Putting needs of people and communities first
- Local ownership of development agenda and development of a local vision;
- Improved capacity to identify development priorities;
- Local monitoring and evaluation mechanisms
- Minimises burden on limited community capacity;
- Platform for sharing information and knowledge;
- Coordinates service provision, minimises duplication and increases efficiency;
- Participatory monitoring and evaluation mechanism.

Challenges:

- Not all service providers participate in FIRM;
- Strong influence of external services;
- Donor withdrawal and lack of continuity;
- Gap between local organisation and members;
- Ensure representative participation of community in FIRM

FIRM initiatives in Grootberg with respect to rangelands and livestock production:

- Training course in livestock production and range management;
- Exchange visits among farmers;
- Fodder production
- Improved animal health and introduction of adjusted species;
- Livestock movement strategies, including marketing and diversified off- farm enterprises
- Monitoring of rangeland conditions

Sources: expanded from NAPCOD, 2002; Desert Research Foundation, 2003 and [www.desertification-namibia.org](http://www.desertification-namibia.org).

#### Lessons for IVP

1. The FIRM approach is a useful approach of service provision to CBOs, as it puts community needs and activities first and forces service providers to coordinate their support;
2. Formal CBO membership has advantages of accountability and acknowledgement of rights and responsibilities, better understanding of the constitution, a commitment to the conservancy, possibility of sanctions, and the option of financial contributions from members;
3. CBNRM is economically feasible, but the returns depend on resource conditions and market access;
4. Non-material benefits are substantial and important for rural development;
5. CBNRM support policy and legislation should be based on local needs and come from practical experience; and

6. Exclusive community control is difficult without recognition of community rights. A real sense of ownership and responsibility comes with strong rights of proprietorship and resource management.

**Table 5.7: SWOT analysis of Namibia's conservancy programme**

<b>Strengths</b>	<b>Weaknesses</b>
Well structured, specialised and coordinated support of service providers (NACSO) Government supports NGOs to support communities More support for natural resource management and monitoring Broad-based resource approach and relatively divers sources of revenues for conservancies Clearly defined boundaries and membership. Communities possess a degree of choice and flexibility with respect to boundaries and membership. Conservancy requirements including benefit distribution plan Community rights entrenched in legislation Spin-offs to other sectors, including livestock production	Dependency on donor support Membership duties are not fully clear. It appears that the 'costs' of becoming a member are minimal; hence membership may not be valued much; Little is known about sanctions and enforcement mechanisms CB approaches remain to some extent sectoral, particularly with respect to livestock and grazing. Understanding and commitment to CBNRM differs among ministries
<b>Opportunities</b>	<b>Threats</b>
Many policies and laws needed to be reformed and historical injustices to be addressed Link conservancies with water point committees	Waning reform climate and devolution support

### 5.2.3 Botswana's CBNRM programme<sup>10</sup>

Botswana does not have a formal CBNRM programme, but CBNRM projects mushroomed in Botswana after the establishment of the Chobe Enclave Conservation Trust (CECT) in 1993. The Botswana CBNRM projects are mostly wildlife based and a few veld product- based projects, including cultural activities with a single model approach of establishing a constitution / trust and tendering / auctioning of wildlife use rights. In 2002, 46 CBOs have been registered.

The main objectives of CBNRM projects are to conserve resources and improve livelihoods; improve resource marketing; and to enhance environmental education among communities.

CBOs have to form a Representative and Accountable Legal Entity with a constitution, and a management plan. After approval of the plan by government and the Board, the CBO may be granted exclusive wildlife use rights for a specific community CHA. DWNP determines the quota for each year; the CBO has the right to use the quota itself or sub-lease (part of) it. The rights are granted for fifteen years, divided into three periods of five years. CBOs have environmental guides who monitor local natural resource conditions and hunting/ tourism activities in the area.

At the District level, communities are supported by the Technical Advisory Committee, particularly for the development of management plans and in dealings with joint venture partners. DWNP and its extension staff are the lead support agency from central

<sup>10</sup> This section is based on the Botswana CBNRM Review (Arntzen et al, 2003).

government. Several NGOs have supported CBOs, including the KCS, Perma culture, Thusano Lefatsheng and the Forestry Association of Botswana. CBO have established an umbrella organisation BOCOBONET to represent their interest.

A few CBOs have diversified towards veldproducts or entirely depend on veld products (e.g. Kgetsi ya Tsie). These CBOs operate without special policy or legal instruments. There is no CBNRM policy or law as yet (the policy is in preparation since 2000).

#### *Performance*

According to Arntzen et al (2003), some of the CBNRM achievements include revenue from joint venture agreements, employment within the trusts and with private companies working with communities and acquisition of and control over assets, such as natural, financial and human resources. Employment generated by CBNRM in 2003 was estimated between 1000 and 1 500 (Arntzen et al 2003). Few benefits (other than game meat) are disbursed to households, and therefore the impact on livelihoods is small. A few CBOs give small annual cash amount to households or support vulnerable groups within the villages. There is growing awareness that household benefits need to be increased.

Generally CBNRM projects have increased local benefits, mostly due to joint venture agreements, but they are proving to be volatile and insecure due to dependency on wildlife quota.

The limited success of trust projects raises the question as to whether trusts are the best institution to operate CBNRM projects. A SWOT analysis for CBNRM is presented in Table 5.8.

#### *Legislation and policy environment*

No comprehensive policy or legislation for CBNRM has been adopted yet. There exist some related policies and for CBNRM to function effectively, there is need to have a policy. The Wildlife Conservation Policy, 1986 is one related policy that led to the creation of wildlife management areas (WMA). The Tourism Policy, 1990 created tourism concessions, also in communal areas. The Revised Rural Development policy, which identifies areas for private commercial development as well as areas for community-based development for both subsistence and commercial purposes, is relates well to the objectives of CBNRM. However, the draft (2003) CBNRM policy which aims at providing a comprehensive approach towards local management of natural resources is seen as a step to full support of CBNRM in Botswana.

**Table 5.8: SWOT analysis of Botswana CBNRM projects**

<i>Strengths</i>	<i>Weaknesses</i>
<p>A SWOT analysis of local institutions is important to identify the most suitable ones and strengthen them as seen in the case of CBOs.</p> <p>The Process captures growth, diversity, flexibility and sufficient time as main drivers for CBNRM.</p> <p>CBNRM projects have very important material and non-material benefits</p> <p>Constitution of most trusts allows them to make and implement by laws</p>	<p>Lack of specialisation of CBNRM Support organisations</p> <p>Numerous central and local government institutions are involved in CBNRM support and/or policy development. This large number has led to fragmentation of CBNRM support and to coordination problems.</p> <p>Lack of capacity and skills in CBOs</p> <p>Limited local market for productive projects</p> <p>The 'single CBNRM model' approach is not sufficiently flexible to accommodate local variations in natural resource and socio-economic conditions</p>
<i>Opportunities</i>	<i>Threats</i>
<p>Opportunities to make tendering more competitive exist, for example by making the process more transparent by compulsory disclosure of company information.</p> <p>Linking with RD Strategy and Policy</p> <p>CBNRM policy is being developed</p>	<p>Trusts may be affected by political influence, making them difficult to operate and non-transparent</p> <p>Loss of confidence in goodwill of CBOs</p> <p>Accrual of resource benefits for communities is disputed (the <i>diamond argument</i>)</p>

Source: based on Arntzen et al, 2003.

#### *Lessons for IVP*

1. The performance and returns of CBNRM projects varies enormously based on the duration of the project and the resource endowments;
2. Small cash disbursements to households are greatly appreciated, but CBNRM projects have only marginally contributed to livelihood improvements. Non-material benefits are substantial (cf. Namibia);
3. CBOs need to increase the benefits to individual households to gain credibility within the community. Adversely affected community members should be compensated;
4. Expansion and diversification of the CBO revenues is important;
5. CBOs need substantial, coordinated and efficient support, particularly in areas such as administration and management, organisational development and financial management;
6. CBNRM projects are hampered by the absence of a CBNRM policy and support programme;
7. Support will be needed for a considerable period. However, support should be targeted towards the specific stage of the CBO and conditional on performance/progress;
8. CBOs are not well-equipped or structured for managing businesses. Therefore, joint venture partnerships are very important;
9. A CBO needs a constitution, clearly defined boundaries agreed by the participating villages with a well-defined membership. A committee that is representative is required along with an equitable benefits distribution plan.
10. Participatory planning foster stakeholder cooperation and ownership.

#### **5.2.4 Some CBNRM experiences from other countries**

##### *Kenya*

Rutten (2002) analyses the case of community-based wildlife ecotourism in Eselekei Conservation Area (ECA), which is a small community based wildlife park. The idea – initiated by the Kenya Wildlife Services was to expand the *Parks beyond the Parks* through community involvement. The approach relies heavily on the private sector, which in the case of ECA was not really interested in community development. The operator's claim that families would benefit from tourism than from livestock was erroneous, as families benefited US\$ 30 per annum from tourism compared to US\$ 2000



for a good type of cattle. In fact, families should be paid an extra US\$ 10 per annum for free roaming of wildlife in communities' grazing areas. Rutten further argues that communities need support during their negotiations with tour operators (which did not happen in the case of ECA), and that communities need to be united in their support of CBNRM. It is equally important that communities have realistic expectations about the benefits through proper dissemination of information and education.

Lessons from the case study for IVP are that:

1. Communities must take the initiatives themselves;
2. Broad based discussions within the communities about the project are essential;
3. Quality advice is needed from an independent source (e.g. development oriented NGOs);
4. A small start may be better than a start with heavy investments;
5. Joint ventures for commercial operators should be tendered and standard regulations must apply;
6. Negative impacts on other communities must be considered while entering into contracts; and
7. Benefits and costs must be fully understood by the community.

#### *Tanzania*

Alden Wily (2003) documents the case of Tanzania's Village Land Act that empowers local communities to manage their own land resources. Tanzania has probably the most decentralised land tenure system in southern Africa. In 1999, The Land Act and Village Land Act were adopted as the basis for rural development as well as community based land tenure management (Alden Wily, 2003). The laws became operational in 2001.

Under the Village Land Act, Village Councils assume responsibility for the management of *village areas*. Tanzania has around 11 000 village areas. The Village Assembly that comprises all adult villagers appoints the Council for a five-year period<sup>11</sup>. The VC becomes the formal and legal land manager of village areas. Villagers may register their existing land rights, leading to a Customary Right of Occupation.

#### **5.2.5 Concluding remarks**

Although CBNRM projects emerged in the late 1980s, they have rapidly spread to many countries and villages. This reflects appreciation of communities about the development opportunities that this approach offers them.

While the CBNRM approach started with wildlife resource, it now covers fisheries, wood resources, a variety of veld products and water. Grazing resources are only included in Namibia (on paper).

Most CBNRM projects do not make a large, direct, impact on rural livelihoods. Non-material benefits are important and substantial. Increasing benefits and a fair benefit distribution are critical to the long-term success of community-based projects. Namibia has a benefit sharing plan requirement for communities, and Zimbabwe uses a benefit sharing formula. Joint ventures with companies enhance the economic benefits, but communities need support to negotiate a reasonable deal.

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<sup>11</sup> A minimum quota for women is 25%.

The current CBNRM project focus on revenue sharing, and have limited resource management responsibilities. There are positive indications that CBNRM contributes towards resource conservation, but the current programmes fall short of common property management.

Communities will need long term, sustained support that needs to be conditional on progress made. Namibia's FIRM approach is a good example of providing coordinated support that focuses on community needs and priorities.

While the approach may be similar at a general level, CBNRM activities need to be based on local resource endowments and needs. It is therefore good that IVP has support staff at each site to be sensitive to inter site differences to monitor needs and resources.

## 6 Conclusions and recommendations

This chapter aims to highlight the main findings of the study and to make recommendations, based on the tasks of the ToR. After a brief situation analysis of communal rangelands (section 6.1), the main conclusions and recommendations are formulated for each of the tasks of the ToR (sections 6.2-6.4). A note regarding the presentation: recommendations are presented in **bold** for purposes of quick reference.

Promoting and implementing community-based rangeland management is a large challenge that exceeds the capacity of individual projects such as IVP. This needs to be born in mind when reviewing and implementing the recommendations made in this chapter. It is probably not feasible to implement all recommendations in each village. *Focal point management* suggests that the IVP project concentrates on a limited number of priority areas where it can demonstrate the feasibility of CB rangeland management. These priorities need to be determined by the IVP communities

The consultants made several observations about IVP that may be relevant for its work. These are briefly indicated below, before the analysis of the current situation of communal rangelands and the discussion of findings and recommendations by task of the ToR.

The number of sites and villages is (too?) large for a pilot project. Substantial resources are required to adequately support the sites, and this limits the opportunities for in-depth support. The environmental issues and development needs are not very clearly articulated and cover a wide range of issues. It is not evident that rangeland degradation is a priority; consequently, IVP activities must be broader than focusing on grazing schemes and stocking rates. It is unclear what the costs and benefits of the project to communities will be. There should be net benefits to communities and individuals in order to raise and sustain interest in the approach beyond the initial 5 years period. Some of the planned activities concern revival of old projects, and will require good understanding of what went wrong in the past. Progress of the project has been slow, and it will be a major challenge for the project to deliver real benefits to communities. The IVP is outside the mainstream of agricultural policies and programmes that aim at privatising rangeland management. This makes the mission and tasks of IVP more difficult and yet more important. The main IVP is to demonstrate that community-based rangeland management can bring development and conservation benefits.

### 6.1 Situation analysis of communal rangelands

Botswana's rangelands suffer from lack of management, particularly in communal areas (chapter 2). The communal rangelands have shrunk in size, and are increasingly congested. Wildlife resources have decreased and small stock increased. Land Boards (LB) and the Agricultural Resources Board (ARB) have been unable to manage rangelands. To address the situation of open access, three management models could be pursued:

- state-run rangeland management;
- private rangeland management; and
- common property resource management.

The first two models are currently found in Botswana; the third one existed in the past in communal rangelands (cf. chapters 2 and 4). IVP aims to establish a community-based common property regime. Botswana's agricultural policies advocate ranching as *the* solution to open access and as a means to improving livestock productivity (TGLP and NPAD; chapter 3).

While the remainder of this chapter will focus on community-based approaches, we briefly summarise features and results of the state-led and private rangeland management models, as discussed during a 2002 Workshop on Policies and Institutions for Livestock Management in Dry Areas (Ngaido, 2002).

*State-led rangeland management* is mostly found in protected areas, and in a few state lands elsewhere. Some of these areas are leased out (de-facto private); others operate in practice as communal rangelands, and are not managed (e.g. Makgadikgadi Pans). The experiences with (semi) government bodies such as the LB and ARB in communal rangeland management are not encouraging. Clearly, the capacity of government to effectively manage rangelands is limited, and a greater government role does not suit its newly defined role as a facilitator (rather than implementer) of development. State rangeland management is often costly, resource allocation may be intransparent and enforcement is problematic. Local knowledge is not routinely used. State led management may be most suitable in fragile and valuable environments, in large catchments areas or in areas where heavy investments are needed for rehabilitation. Thus, more state influence in communal rangeland management is not recommended.

*Private rangeland management* has the advantages of quick and responsive management and low decision-making and management costs. Moreover, private management encourages innovation, investment and adaptation. However, private management leads to exclusion and inequalities, as resources and their benefits are no longer accessible to non-owners. Privatisation may also lead to fragmentation of rangeland holdings, and possibly lead to uneconomic sizes of ranches. It reduces livestock mobility, and requires adjustments in traditional livestock management strategies. Finally, privatisation could lead to speculation, where people acquire resources for speculative rather than productive purposes. This happens when land costs are low (as in Botswana's Tribal Land). Private rangeland management could solve open access problems, and could stimulate livestock growth. However, such benefits will only be realised in practice, when livestock strategies and practices are modified. Privatisation has negative social impacts when resource access is restricted and employment creation is limited. It is important that the *actual* economic, social and environmental impacts of ranching be systematically assessed. Such impacts could be compared with the impacts of community-based rangeland management, and inform policy formulation and implementation of the Ministry of Agriculture.

At present, large parts of communal land are being privatised (*de-facto* or *de-jure*) and it will be difficult to re-establish common property resource management in such areas. CPR needs to be considered as a solution for open access to community rangelands, i.e. areas closer to villages where no or few individual boreholes exist. In such areas, community rights can be established. This implies for the IVP sites that the communities identify the location and boundaries of community rangelands, where they could assert communal land and water rights.

## **6.2 Models of community-based management of rangeland resources**

Community-based rangeland management has been initiated from different angles that have insufficiently interacted until now. Namibia has attempted to integrate community-based resource management from the livestock as well as wildlife tourism side, but the results have been limited until now. In Zimbabwe and Botswana, CBNRM approaches are broadened beyond wildlife to include veld products, but they do not incorporate grazing resources as yet. Most livestock approaches have followed the communal ranch model with limited success. The unfenced livestock approach of Lesotho appears to be most successful.

The early generation of grazing schemes and cells largely failed due to a variety of factors:

- Use of a prescriptive, top-down approach often derived from commercial livestock sector, with emphasis on fencing, rotational grazing and stock control;
- Rangeland degradation is often not perceived as a priority concern by communities. Where and when it occurs, it is associated with rainfall patterns rather than stocking numbers;
- Failure to provide benefits to communities. While the condition of individual animals may be better on ranches, the overall productivity could be lower due to lower stock densities. After return of livestock to communal areas, the benefits of schemes quickly disappeared through weight losses, etc.;
- Extension and donor support have disguised the true costs of the schemes. 'New' communities were reluctant to invest themselves after withdrawal of financial support;
- Community conflicts and limited capabilities. Conflicts arose between members and non-members, and in some cases schemes were dominated by wealthy livestock owners;
- Scarcity of communal rangelands made it difficult to set aside areas for schemes and cells. Fencing exacerbated the scarcity of communal rangelands (e.g. Botswana and Namibia);
- Reluctance to adopt new management strategies that are necessary as livestock mobility has been restricted;

Fenced grazing schemes will probably only succeed when they are initiated by communities themselves, and when communities articulate their own management plan (with advice from extension workers). This requires a shift in policy and project emphasis towards supporting and empowering local communities.

Community-based approaches towards other resources such as woodlands and wildlife are more common and have generally performed better than grazing approaches. It is important to analyse the possible reasons, which could include the following:

1. Grazing conditions are not a community priority;
2. Grazing schemes have less extra benefits to communities than community-based wildlife/ tourism schemes, which generated hardly any local benefits before;

3. Wood and wildlife resources are communal with little private interest at stake. In contrast, grazing resources are linked to individually owned livestock and therefore grazing schemes would cause more conflicts.

**It is recommended that IVP-communities themselves prioritise resources for community based management and explain their preferences.**

*Centrality of overgrazing issue and stock control*

The reviewed schemes suggest that communities appreciate that rangeland degradation occurs, but do not see it as a priority for community action because rainfall is considered to be the major determinant of rangeland conditions and stock limitations are considered costly to individuals and the community. This was also concluded from the institutions research project conducted in Botswana in the early 1980s (Brown, 1983). **This implies that the IVP sites should:**

- **not primarily focus on stock limitations and improving rangeland conditions;**
- **consider other measures such as drift fences for the community-controlled grazing areas;**
- **design and implement a grazing management plan by the CBO.**

*Benefit generation*

The literature on community-based projects pays little attention to the material benefits and costs of community-based approaches. It is assumed that community-based approaches generate sufficient benefits to mobilise local communities. The community-based grazing schemes generally showed a lack of net benefits for communities that was initially hidden by grants for capital investments. Even the relatively successful community-based wildlife management schemes showed that the material benefits to households were small, and only a few communities. The experiences show that CBNRM is unlikely to become a major source of livelihoods, and that **benefit generation should have a higher priority in projects such as IVP**. Opportunities for enhancing benefits include the establishment of forward and backward linkages, as determined by market access and local resources. **The following areas are recommended for discussion with the IVP communities:**

6. **Increase forage by fodder projects, use of non-ploughed fields (c.f. Namibia and Zimbabwe);**
7. **Engage in marketing facilitation (e.g. deal with BMC or local trader; cf. Botswana, Lesotho and Swaziland);**
8. **Assist with veterinary services (cf. Lesotho);**
9. **Introduction of tradable grazing licenses and possible grazing management fees; and**
10. **Agro processing such as dairy and biltong.**

Given the increase in small stock numbers and their concentration around villages, **there is need to focus on the constraints and opportunities of the small stock sector**. Economic efficiency can also be increased by efficient use and control of donkeys<sup>12</sup>, identification and exploitation of main veld products, use and management of wildlife resources, conflict reduction and resolution, in particular between livestock and crops

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<sup>12</sup> The number of donkeys has tripled to just under 500 000 in 2002 countrywide.

and between wildlife and livestock. **These issues need to be discussed with IVP communities.**

Non-material benefits of community-based approaches are more visible and probably more substantial. These benefits transcend economic sectors such as livestock. The benefits include acquisition of skills and experience, self-confidence and establishment of local structures. **Non-material benefits need to be incorporated in Cost-Benefit Assessments and to be regularly assessed and documented by IVP.**

#### *Joint ventures between communities and private sector*

Joint ventures between communities and commercial groups in Zimbabwe and Namibia are more successful and productive than pure community initiative, as the former pool financial resources and skills. This would mean that **IVP communities should consider appropriate forms of joint ventures** with, for example, livestock marketing companies, specialised fodder, livestock or game producers (e.g. fodder and ostrich breeding). Activities could be outsourced to communities or alternatively commercial partners could be allocated space within the community areas. In this way, communities could indirectly benefit from the skills and innovative capacity of the private sector.

#### *Benefit distribution*

The distribution of net benefits is critical to the success of the CB rangeland management efforts. If the distribution is considered unfair, or some members do not benefit at all, the approach is likely to fail. At the same time, there needs to be an incentive for community members to contribute, and this can be done by direct benefits. The employees of the CBO usually enjoy the largest benefits (e.g. range riders). In Namibia, communities have to design a benefit distribution plan. CAMPFIRE uses a revenue distribution formula. **It is recommended that IVP communities develop a benefit generation and distribution scheme**, e.g. as attachment to the CAP. Key points would include:

- Opportunities to generate revenues and minimise costs;
- Individual versus collective costs and benefits;
- Consumptive versus community development and investment benefits;
- Benefits for resource management; and
- Compensation for adverse project impacts (e.g. crop damage, predation).

Experiences from CBNRM project demonstrate that household benefits, even very small ones, are highly appreciated and strengthen the perception of local resource 'ownership'.

**It is recommended that communities discuss the merits of tradable grazing licenses.** The number of grazing licenses would be determined by rangeland conditions, and they would be fairly allocated over households<sup>13</sup>. Livestock owners could buy their license to have grazing for more livestock. Communities could also experiment with grazing fees, as long as they bring immediate benefits (e.g. better rangeland conditions, less conflicts).

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<sup>13</sup> Different distribution systems can be used. For example, grazing licenses can be allocated in proportion to the herd size (called grand-fathering). Alternatively, grazing licenses could be evenly distributed among all households.

To stimulate active participation in the CB rangeland management, **it is recommended to establish a link between the level of inputs of individuals and their benefits**, while safeguarding the community nature of the approach.

*Poor links with rural development and livelihoods*

Most community-based livestock schemes are inadequately linked to rural development strategies and rural livelihoods. As a result, it is impossible to understand the resource allocation strategies of local households. It is necessary for IVP project sites to appreciate the opportunity costs of land, labour and capital spent on livestock and grazing. This requires an understanding of the livelihood strategies and the role of livestock and rangeland resources in these livelihoods. Such strategies and opportunities will probably differ among IVP sites. The poor link with rural development strategies also poses the risk that existing support opportunities outside agriculture are not utilised. This may hamper local development and contribute to lack of coordination of external support.

IVP needs to establish much firmer links with the rural development policy and strategy, for example by contributing towards their implementation through the CAP.

*Community-based approaches require carefully, targeted, long-term support*

Few community-based projects would survive without external support, technical and financial. At the same time, there is evidence that external support makes communities dependent on such support, and jeopardises the sustainability. Therefore the support must be temporary, and adjusted in time to the evolving capacity and needs of communities. Support should be suspended or withdrawn if the project does not produce tangible results.

External support will be necessary for a considerable time, but it needs to:

- Recognise the changing needs of CBO during the maturing process;
- Be linked to performance. Support for failing projects should be withdrawn after a due warning period;
- Address specific areas such as organisation and management, financial management, dealing with private sector and government, natural resource monitoring and performance assessment.

Namibia's Forum for Integrated Resource Management (FIRM) is a good model of integrated, cross-sectoral technical and financial support that is focused on community priorities. **It is recommended that the FIRM approach be piloted at the IVP sites.**

*Community rights and responsibilities*

The rights of communities are often unclear, and not formalised. This makes it difficult for communities to exclude non-members, enforce bylaws and/or to apply sanctions. Community (members) rights and responsibilities need to be detailed in the constitution, bylaws, and be recognised under statutory laws.

Land and water are the key resources for community based rangeland management. It is therefore important that communities acquire clear rights and control over land and water resources. While policies and legislation may not *explicitly* recognise community rights, it is often possible for communities to acquire such rights, as policies and laws do not rule out such rights. Community rights are clearly spelled out in Namibia and



Tanzania, but in Botswana, community rights are not formally categorised in the 1968 Water Act or in the Land Policy report.

Other details that need to be regulated include boundaries and membership. Until now, the controlled hunting areas determine the boundaries of CBNRM projects. This is an administrative division for wildlife hunting, and may not coincide with boundaries of communal rangelands. **It is recommended that the IVP sites pilot with relevant boundaries, for example adopting the Namibian conservancy model of boundary negotiations with neighbouring villages.**

*Community-based natural resource management is based on assumptions that have not yet been fully tested and the conditions for success have not yet been identified* CBNRM originates from the failure of government-led resource management in communal areas and from the view that communities need to benefit more from natural resource use for them to adopt a more positive attitude towards natural resources and their conservation. However, the idea that the communities are the *most effective* agents for resource management is not yet proven (Twyman, 1998), and the comparison with private rangeland management cannot yet be made. It is particularly uncertain to what extent communities can develop and implement a consistent resource and development plan and resolve internal conflicts. Similarly important is the question how communities could organise themselves and engage in partnerships to reap benefits and conserve resources.

#### *Different perceptions about CBNRM projects*

In principle, CBNRM projects have a balanced approach towards resource conservation and improving livelihoods. In practice, the perceptions and expectations about the projects may differ. For example, CBNRM is sometimes viewed as a disguised effort on the part of environmentalists to push resource conservation beyond Park boundaries. Bruce and Mearns (2002, p. 27) argue that *'efforts by outsiders to transform property rights in natural resources, used in common 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) highlights two different perspectives in the following sentence summarises the different perspectives and priorities nicely: *'Rangelands are about people and their cows more than they are about healthy cows eating green grass'.*

**There needs to be a shared appreciation of the nature and goals of community-based rangeland management.** Support staff needs to familiarise themselves with the community's motivation towards community-based rangeland management.

#### *Resource impacts of community-based approaches*

Experience shows that CBNRM may contribute towards better resource management (e.g. reduced illegal use, greater resource appreciation and resource rehabilitation), but due to the limited scope of community responsibilities and choice, CBNRM rarely lead to real CPR management. Alden Wily (2002) argues that most CBNRM projects in southern and eastern Africa are *benefit sharing schemes* rather than *management sharing schemes*. The latter require more devolution of power to communities, but they are essential for *sustained* resource management.

The issues raised above show that CBNRM and community-based rangeland management is feasible, but difficult to achieve and that the results may be uncertain.

Several studies identify factors that make success more likely or CPR implementation easier. These include (IFAD, 1995):

**Table 6.1** Factors facilitating CB rangeland management:

Theme/ area	Variable
Livestock sector	Similar distribution of herd size Links between rangeland users and groups involved in other aspects of NRM
Community	Homogenous user groups Communities are small Strong local (traditional) institutions Credible negotiation and low cost conflict resolution fora and mechanisms CPR must generate sufficient benefits Communities must have rights and choices Community rights must not be challenged by external authorities CPR and CBNRM activities must be interlinked and organised in a nested way
Environmental conditions and resources	Large spatial and temporal variability in rangeland conditions Relatively small, manageable resource size. Clear and accepted boundaries (spatial and resources) Key resources must be scarce and monitored
Resource use	Only few competing resource uses Clarity about user group (membership) Users stay close to natural resources Use of local knowledge for management rules and enforcement Local environmental conditions must inform management rules
Extension	Government support

Key questions to be answered during the IVP pilot include:

- Can communities manage natural resources such as grazing with strong individual and community interests?
- Can communities successfully implement productive activities?
- Is there sufficient political commitment to CBNRM and community-based rangeland management?
- Are communities able and ready to carry out their powers?
- Is there an enabling environment to stimulate CBNRM and community-based rangeland management?

The first question can only be answered in future, as virtually no CBNRM approach has covered grazing resources as yet. IVP will play a pioneering role in this respect. As Namibia has similar aspirations, it is important that IVP closely liaises with CBNRM in this country. The answer to the second question is that communities are not best placed and equipped to carry out business activities. Joint ventures with tourism operators, commercial livestock farmers and traders are therefore essential to contribute to rural development and improving livelihoods. **IVP needs to pioneer with innovative joint ventures** such as ostrich breeding and livestock marketing. The answer to the third question lies in the future. There are sufficient policy initiatives and statements in support of community-based approaches. However, the Ministry of Agriculture favours privatisation. It is therefore recommended that **IVP make a serious effort of demonstrating within MoA that community-based rangeland management is an alternative to privatisation** whose economic, social and environmental merits need to be systematically compared with those of privatisation.

### **6.3 Capacities, powers and legal status of CBOs**

Community-based rangeland management requires effective local CBOs as well as an effective macro structure for rangeland management and a supportive institutional support structure.

#### *Macro rangeland management structure*

In terms of the macro structure for rangeland management, CBOs will have to deal with key institutions such as the Land Boards, the Water Apportionment Board, the Department of Wildlife and National Parks and the Agricultural Resources Board. Most of these are statutory government institutions. The current institutional set-up has three major problems.

Firstly, there is no institution with overall responsibility for the use and management of rangelands and their resources. The NCSA could perform this role, but does not have the legal backing as yet from the Environmental Management Act (EMA). It is therefore recommended that IVP will lobby for finalisation and adoption of the EMA to fill this institutional vacuum.

Secondly, there are gaps in resource management that are not addressed by any institution (wood, veld products and grazing resources). These gaps need to be filled by existing institutions (e.g. ARB) or mandates of existing institutions need to be expanded. An adjusted ARB, for example as a government department, could cover the gaps. IVP need to lobby for this.

Thirdly, the rights of communities are not clearly defined. Most legislation does not explicitly mention community rights, and yet community rights can probably be obtained under such legislation. The legislation should specify community rights over rangelands. In particular, it should specifically accord communities the user and management rights. Ownership of rangeland resources would remain with the State in line with current legislation. The legislation should also specifying responsibilities of communities over rangelands such as the duty of care and diligence in the use of rangeland resources. This ensures that communities use these resources responsibly. Legislation should clearly differentiate between the rights with respect to private and communal rangelands, and their interactions. Dual grazing rights can be curtailed through CBOs. Those ranchers that are members of the communities retain the same resource rights as other members. However, ranchers who are not member of the CBO (i.e. non-residents or residents for less than five years) have no rights to community rangelands. Their use of such rangelands has to be negotiated as joint ventures through the CBO. Finally, community rights should be long enough (subject to conditions) to promote investment through joint ventures and resource conservation. Rights also need to be transferable (subject to conditions).

The 'lead' organisations such as LB, ARB and WAB experience the problem of capacity or manpower, limiting their implementation, monitoring and enforcement capacity. For the management of rangelands, the institutions largely depend on the manpower of the various department under which they operate. Further, the personnel of these institutions do not have the necessary technical skills and experience for the management of rangelands. Therefore, the institutions need to be adequately staffed, trained and equipped with sufficient powers.

*Local rangeland management institutions/ CBOs*

**Community-based rangeland management needs to be driven by a Representative, Accountable Legal Entity (RALE), similar to those established for community-based wildlife projects. Given the capacity constraints at the local level, it is generally an advantage to utilise existing community-based organisations (e.g. wildlife Trusts<sup>14</sup>). The study reviewed the options available for community-based rangeland management, and concluded that Trusts and Agricultural Management Associations would be most suitable.** The options of forming a company, syndicate or cooperative were judged less suitable.

*Trusts* are non-statutory institutions. They involve a relationship in which a trustee is created to be responsible for keeping the property in trust for the benefit of another person or a particular purpose. This system has been successfully used in CBNRM projects. It has been successful because apart from passing on benefits to members, they provide the necessary training and education for members. Moreover, the members have always worked for trusts and they offer the most democratic way of managing resources. The requirement of providing training and education increases capacity of the trusts. As IVP communities have formed interim Trusts, this option need to be pursued further. The Trusts requires a constitution, management plan, Board of Trustees, and transparent operational procedures. Moreover, Trusts need to develop bylaws and apply to LB, WAB and DWNP for the granting of resource rights.

*Agricultural Management Associations (AMA)* are created by the Agricultural Management Associations Act. An AMA is an association meant to management of agricultural resources with aim of benefiting members. By law, these associations are required to have constitutions, which specifically spell out the rights of members and administrative structures. Where no Trust exists or is planned for IVP sites, **it is recommended that a pilot will be carried out with a CBO as an AMA.** This will show in practice the advantages and disadvantages of the AMA vis-à-vis the Trusts.

At this stage, VDCs cannot run community-based rangeland management projects themselves. However, it is important for the CBO to establish a good working relationship with the VDC.

**At community level, CBOs should:**

- **be established under the legislation in order to give them legal existence;**
- **develop a Constitution to govern their operations. The Constitution needs to state the aims, the administrative structure, rights and responsibilities of members, fees, qualification and disqualification of members, liabilities of members. The Constitution should also specify the requirements for education and training of members to enhance capacity;**
- **be encouraged to apply for the relevant resource rights and application of resource management rights through national institutions such as LB, ARB and WAB;**
- **be encouraged, through the Constitution, to enter into contracts with third parties who shall inject capital and skills into their operations;**

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<sup>14</sup> Most Trusts already cover veld products and wood resources, which are part of rangeland resources.

- **develop bylaws for rangeland management to fill gaps and supplement national legislation;**
- **establish a monitoring and enforcement/ sanction system to ensure effective management;**
- **be empowered by law to borrow money to use in the operation of the institution preferably without security;**
- **democratise the operations of the Trusts and make them transparent;**
- **be accountable to members for their activities and develop a conflict resolution mechanism;**
- **be subjected to external supervision/monitoring which should involve providing advice to the institution; and**
- **establish links with similar organisations so as to learn from the experiences of these organisations.**

Penalties for communities are available for the misuse of the rights over rangeland resources such as payment of a fine, suspension of rights for, say, two consecutive years or placement under administration or curator ship.

#### **6.4 Policy and legislative environment for community-based rangeland management**

IVP is a five-year pilot project (2002-2007) that aims to demonstrate the potential of community-based rangeland management, as an alternative or supplement to private rangeland models. The multitude of required tasks and the limited time available pose serious challenges and require project choices. Basically, IVP cannot afford to merely concentrate on the five-year period, but needs to look beyond to safeguard the future of community-based rangeland management. However, this needs to be reconciled with the requirement to bring tangible benefits to communities and to evaluate community-based rangeland management as an alternative or supplement to ranching.

It will be very difficult within this period to demonstrate all benefits of a community-based approach and to establish an enabling environment. At the same time, focus on the project sites without due attention for the broader policy context of IVP increase the risk of the demise of the project after five years.

Given the limited time and resources, **it is therefore recommended that IVP pursues different policy lines simultaneously. Firstly, it needs to identify and exploit existing policy options and instruments. Secondly, IVP needs to make an input in key policies that are currently in preparation such as the CBNRM policy and the Land Policy. Thirdly, it needs to develop a local IVP strategy to deal with policy gaps. Fourthly, IVP needs to demonstrate that it is compatible with trends in rural development policies, poverty reduction strategies and Vision 2016.**

In Botswana, community-based projects are currently executed without a comprehensive supportive environment. This is not unique to Botswana (see section 6.2), but this state of affairs certainly makes the effective implementation of community projects more difficult. For example, it has caused conflicts between members and non-members and is a disincentive for common property resource management, as free rider behaviour cannot be banned. Ideally, community resource rights and responsibilities are explicitly

mentioned under policies and legislation. This situation is found in Tanzania with the Community Land Act, where local communities control local natural resources.

The enabling environment is in the making in Botswana. According to Murphree, 1995, quoted in Jones (1999, p.13), *for long-term sustainability, CBNRM requires a fundamental shift in national policies on tenure in communal lands. The core of the matter is strong property rights for collective communal units, not only over wildlife and other natural resources, but over the land itself*. It is necessary that community rights are clearly defined in new policies and legislation such as the Land Policy and the CBNRM policy. **It is recommended that the IVP project promotes:**

- **the incorporation of community rights and rangeland resources in the forthcoming CBNRM policy;**
- **the recognition of community land use rights in the new Land Policy;**
- **approval of the Environmental Management Act**
- **the development of policies covering rangelands, veld products and wood resources;**
- **the recognition of community-based rangeland management as an alternative or complement to land privatisation within the Ministry of Agriculture. Such recognition would lead to cost benefit assessments of both options.**

In the meantime, existing policies and legislation may offer opportunities to gain resource access and rights without specific reference to communities. It is important for IVP communities to better utilise such opportunities. **It is recommended that IVP communities:**

- **Apply for community land and water rights under the Tribal Land Act and the Water Act. The community land should be compatible with the District Land Use Plan;**
- **Develop the Community Action Plans (CAPs) under the auspices of the Rural Development Strategy;**
- **Develop a poverty reduction component within the CAP to access the Poverty reduction Strategy;**
- **Apply for community zones in nearby National Parks and develop a local Parks and People Strategy;**
- **Apply for a community ranch under the NAPD as an *additional* piece of land an opportunity for specialised livestock production. Considerable financial assistance is available under the policy, and the pilot would offer valuable experiences;**
- **Request the ARB to declare stock and conservation orders where they seem necessary. This could be part of a community resource management plan;**
- **Request the LB to impose livestock ceiling per member, where deemed relevant;**

Communities prioritise livelihood needs, and the local community rarely sees rangeland degradation as a priority problem. Therefore resource conservation must positively contribute to rural development and livelihoods. This requires in practice that livelihoods are put first, and that resource conservation becomes a tool. **It is therefore recommended that CBNRM policies are closer affiliated to rural development policies, and that IVP in particular seeks close cooperation with the**

**implementation of the rural development policy and strategy.** IVP sites could become implementation sites of the policy and strategy.

Finally, the need to reform the extension system has been repeatedly stated (e.g. Rural Development Policy; CAR, 2003). Such reform is necessary for several reasons:

- Technical support need to be augmented by broader based extension support for groups and communities);
- Gaps need to be filled in extension work (e.g. tourism, organisation development, financial management;
- Attitude of extension workers needs to shift towards cooperation with and participation of local communities. At present, extension work is still mostly following top-down approaches, aimed at solving local problems that are externally identified.

**It is recommended that IVP sites pilot Namibia's FIRM approach towards extension and support.**

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## Appendix 1: IVP sites and activities in Botswana

IVP has selected the following three sites:

1. *Kgalagadi South* with six participating villages: Struizendam, Bokspits, Vaalhoek, Inversnaid, Rappelspan and Khawa. The idea would be to group the villages into two sets of communities. The first one would cover all villages except Khawa (the western part of K 27). The second one would cover Khawa, as this village was already in the process of establishment of a wildlife based CBNRM project (KD 15). The population of the two clusters would be 1792 and 623 respectively.
2. *Kweneng North* with six villages: Lephephe, Sojwe, Shadishadi, Boatlaname, Makabanyane, Thotayamorula and a total of 7182 people.
3. Boteti area with three villages: Mopipi, Kedia and Mokoboxane and an estimated population of 7768.

The villages were selected based on the extent of degradation, ability to work together on community projects and level of interest and commitment expressed in the project. The large number of sites and villages offer a considerable challenge to a pilot project such as IVP, for example because of inter-village rivalry and great variations in local conditions and priorities. It seems unlikely and unwise that all IVP activities are carried out in each village and site.

The main environmental and land use features of each site are captured in Table A.1.1.

*Table A1.1: Features for the IVP project sites in Botswana*

<b>Kgalagadi South</b>	<b>Kweneng North</b>	<b>Boteti</b>
Very low rainfall (between 225mm to 250mm)	Area includes both sandveld and hardveld	The area is located between Central Kalahari Game Reserve and the Makgadikgadi Pans National Park
Extreme temperatures	It is situated on a fossil valley, as an extension of the Serorome valley	River has been dry since the early 1990s.
Vegetation is not diverse and sparsely distributed	Vegetation is more diverse on the sandveld	Livestock is predominant land use and economic activity in the area.
Formation of sand dunes is also a major feature	Residents are mostly agro-pastoralists	The other forms of land use are crop production, hunting and gathering
Employment is education related on government departments	Employment is education related on government departments	Saline water feature in the area
Most people rear small stock	The primary forms of land use are arable agriculture, human settlements and livestock grazing	The area is rich in veld products Its proximity to Orapa/Letlhakane mines provides employment opportunity
A CBNRM project is being established in Khawa	A demonstration game ranch is close to the area	The total population is 7 768
Estimated targeted population is 2415 including Khawa	Estimate of target population is 7 182	

Sources: IVP, 2002 and 2003.

To-date IVP Botswana has carried out the following major activities:

- Community mobilisation and project introduction. IVP has a full time staff member for each site.
- Baseline assessment/ situation analysis. This provides information about the history of the area, land uses, environmental and development concerns, SWOT analysis, institutional/ organisation analysis and planned activities.
- Institutional development: interim Trusts have been established in each site. DLUPU act as the district steering committee;
- Environmental Education Strategy
- Preparation of a Participatory Community Monitoring System Manual
- Community Action Plans (CAP). Villages are preparing CAP, which are currently at different levels of completion.

The next steps will be to start the CAP implementation, and to formalise the institutional set-up. The preparation of Community Management Plans has been mentioned too (CMP)

According to the annual report for 2003 (IVP, 2004), the project had made progress in the areas of institutional development, baseline analyses of the sites, environmental education and rangeland resources monitoring.

A National Steering Committee and District Steering Committees have been established. Community support units (CSU) were formed for each site with a full time on-site staff member. For each site, interim community resource management trust committees were also set up.

Situational analyses were produced for each site, covering climatic conditions, physical landscape, environmental issues, land use issues, local institutions, livelihood patterns of local communities and their socio-economic profiles.

Environmental education was pursued through awareness raising workshops. An environmental education strategy was developed for IVP Botswana to disseminate project results locally and nationally.

Community workshops were held to gain community input into village specific *community action plans* (and the above environmental education strategy);

A participatory monitoring tool for environmental change and degradation was developed. After fieldwork and with participation of farmers, rangeland-monitoring indicators were developed and tested. The indicators will ultimately lead to a manual for farmers to monitor their own rangelands (PIDP Report, 2004).

The results of the SWOT analysis, carried out by the IVP for each site, is summarised in Table A.1.2. Generally, communities are considered to have a wide range of strengths, raising hopes about a successful project implementation. Communities appear committed to the projects, there are strong local institutions, particularly the VDCs and there seems to be sufficient political commitment. New Infrastructure, community-based rural development policies and CBNRM, and proximity to National Parks offer opportunities for community-based projects. The main weaknesses include the dependency syndrome on government, unrealistic high expectations and few immediate and tangible project benefits.

Table A.1.2: SWOT analysis for the IVP project sites in Botswana

Strengths	Kgalagadi S	Kweneng N	Boteti
There are similar culture and beliefs, reducing chances of conflicts	X		
Most people are aware and understand natural resources in their areas	X	X	X
Literacy level is average to high, making it easier to convey messages	X		X
Community participation is encouraged	X	X	X
The local stakeholders support the project	X	X	X
IVP can build on existing projects	X	X	X



High level of community motivation	X	X	X
There is political will to support the project	X	X	X
Existence of strong local institutions like VDC	X	X	X
Existence of diverse resources			X
Good representation of different community sectors			X
<b>Weaknesses</b>			
IVP has few tangible benefits for communities	X		
Communities are not optimistic about voluntary projects	X		
Project logistics are controlled from Gaborone, which might delay the project	X	X	X
Dependency syndrome on government is rife in rural areas	X	X	X
Participation is skewed towards women	X		
Scarcity of natural resources		X	
Illiteracy among most community members		X	
High level of unemployment		X	
Very high expectations by the community		X	X
<b>Opportunity</b>			
Proximity to the Kalahari Transfrontier Park offers tourism opportunities	X		
Improvements in infrastructure like roads, health facilities, etc.	X	X	X
Sand dunes are a tourist attraction	X		
High intensity and duration of sunlight offers potential for development of solar power	X		
Policy environment supports CBNRM		X	
Community woodlands		X	
Use of nearby Ditlhopo game ranch may generate income through tourists		X	
Community management of Bays club as a lodge			X
Establishment of a trust to manage natural resources in state land CT 10 and Hima, an area within 4B (Kedia RADS)			X
<b>Threats</b>			
Shocks such as drought, veld fires, HIV/AIDS	X	X	X
Government policies that may not support project objectives	X	X	X
Water shortage and lowering of the water table	X		X
Lack of communication services and electricity	X		
Fragile environment may not tolerate certain interventions such as, reintroduction of indigenous vegetation seedlings	X		X
Lack of market for livestock	X		X
Conflict of interest among community members	X		
Shortage of grazing land due to mining and protected areas		X	X

Source: IVP, 2003

Villagers were asked about their environmental concerns, development priorities and preferred IVP activities. The results of this exercise are summarised in Table A.1.3. The list contains mostly frequently cited concerns without major surprises. The listing seems haphazard, and incomplete, and varies in detail between sites. The issues do not seem to be clearly defined and delineated (e.g. degradation, overgrazing and overstocking). Interestingly, overgrazing was the only environmental concerns shared by each site. Other common concerns are land degradation, overstocking, soil erosion, veld fires and water shortages. Surprisingly, drought was only mentioned in the Boteti site. It is likely that there has been some oversight or under/over-reporting of some communities. Clearly, environmental concerns need to be regularly monitored and prioritised.

Table A.1.3: Environmental concerns, development priorities and suggested IVP activities

Environmental Concerns	Kgalagadi S	Kweneng N	Boteti
Overgrazing	X	X	X
Land degradation	X		X
Overstocking	X		X
Veld fires	X	X	
Soil erosion	X	X	
Sand dunes	X		
Invasion of exotic species and loss of biodiversity	X		
Deforestation	X		
Lack of firewood	X		

Water shortage	X		X
High and low temperatures	X		
Natural Resources over exploitation( e.g. veld products)		X	
Livestock predation			X
Destructive winds			X
Drought			X
<b>Development priorities</b>			
Rehabilitation of degraded land and sand dune stabilization (MOA)	X		
CBNRM project in Khawa (wildlife mgt and craft production)	X		
Tribalisation of CT10 for better management (good for CBNRM)		X	
Training of farmers by FRTC			X
Game Proof fence around MPNP for livestock-wildlife conflict and crop damage			X
Demarcation and fencing of Boteti Zone 6			X
<b>Suggested project activities</b>			
Rotational grazing around boreholes	X		X
Establishment of woodlots	X		X
Fodder production for livestock during dry season	X		X
Establishment of community ranches	X		X
Water reticulation to reduce intensity of grazing impact	X		X
Allocating grazing rights to syndicates	X		X
Construction of drift fences	X		X
Train farmers on rangeland management	X		X
Utilization of livestock by- products	X		X
Solar power energy from high temperatures	X		
Introduction of 4x4 sand dune trail within KD15	X		
Lodges and guest houses	X		
Veld products collection		X	

Source: IVP, 2003.

The suggested IVP activities are wide ranging, covering water, land, livestock, veld products and tourism issues. Presumably, these activities will feature in the Community Action Plan of each village. The activities for Kweneng North are not yet identified. No activities are listed for livestock marketing, but fodder production, water reticulation and rotational grazing are listed as livestock activities for IVP.

It is noteworthy that many development projects are old, previously abandoned project that IVP intends to resuscitate these projects and build on them to benefit the community. This should only be done after an analysis of the reasons of the failures and intensive discussions with the communities involved.

According to the annual report (IVP, 2004), several important lessons can be learnt from the activities to-date:

- 1) Communities must be integrally involved in project planning and implementation and decide on project priorities to promote project ownership.
- 2) It is important for the Ministry of Agriculture to integrate IVP activities into its strategic plan and to attach officers to specific IVP activities in order to ensure its sustainability beyond the pilot period.
- 3) There is need to seek innovative and working examples of communal rangeland management.

The project has identified several important past and future challenges:

- Past: attendance of project meetings by stakeholders; expectation and delivery of short-term community benefits; women were most active in projects and meetings
- Future: developing comprehensive legislative and policy support for IVP; developing sufficient institutional structure within DCP to sustain and expand IVP beyond the project cycle ending in 2007; active involvement of all stakeholders in implementation of

rangeland management plans; and reviving a spirit of volunteerism among community members.

The IVP encountered problems in the absence of clearly delineated boundaries, absentee farmers with 'stakes' on the sites and inadequate policies and legislation to stimulate CB-rangeland management and difficulties in improving livelihoods on the short run.