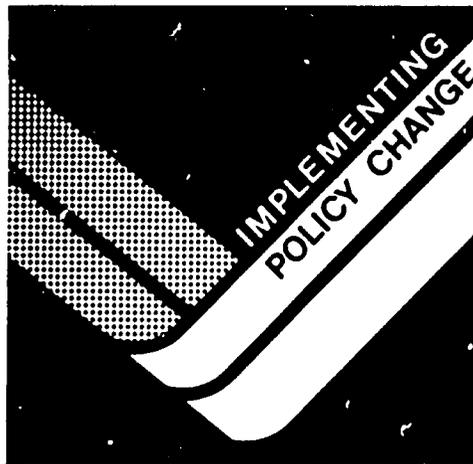


PD-ABK-091
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BOTSWANA'S NATIONAL CONSERVATION STRATEGY: ORGANIZING FOR IMPLEMENTATION

October 1994



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Global Bureau, Center for Democracy and Governance
Project #936-5451

PD-ABK-091

**Botswana's National Conservation Strategy:
Organizing for Implementation**

George Honadle

Implementing Policy Change Project

October 1994

Acknowledgements

This study is one component of a buy-in to the AID/G/DG (Global Bureau, Center for Democracy and Governance) project, Implementing Policy Change (IPC), from the Africa Bureau's Policy Analysis, Research, and Technical Support Project (PARTS), which is managed by the Office of Sustainable Development, Productive Sector Growth and Environment Division (SD/PSGE, formerly ARTS/FARA). The study team consisted of: Derick Brinkerhoff, Abt Associates Inc. (task manager and IPC research director), Veronica Clifford, Management Systems International (IPC research coordinator), and George Honadle, Abt Associates Inc. (consultant). Fieldwork was conducted in collaboration with Clement Dorm-Adzobu, World Resources Institute (WRI), who is based in Abidjan at the Network for Environmentally Sustainable Development in Africa (NESDA). In Washington, the team acknowledges support and assistance from Tony Pryor, AFR/SD/PSGE, Jeanne North and Pat Isman, G/DG, and Tom Fox, WRI. In Botswana, the team's efforts were facilitated by Paul Bartel and Robert McColaugh, USAID/Gabarone, and by the members of the NCS Coordinating Agency, especially S.D. Liphuko, M. Sebina, A. Kanego, and Stevie Monna. Without their active assistance the team would not have been able to keep to their tight schedule and cover so much ground in so little time. We thank all those people in Botswana, both inside and outside government, including the participants in the workshop, for taking time to meet with the field team to share their information, perspectives, insights, and experience related to the National Conservation Strategy.

List of Acronyms

DWNP	Department of Wildlife and National Parks
EEC	European Economic Community
EPAT	Environmental and Natural Resources Policy and Training Project
IPC	Implementing Policy Change Project
IUCN	International Union for the Conservation of Nature
MFDP	Ministry of Finance and Development Planning
MLGL	Ministry of Local Government and Lands
MSI	Management Systems International
NCS	National Conservation Strategy
NCSCA	National Conservation Strategy Coordinating Agency
NEAP	National Environmental Action Plan
NESDA	Network for Environmentally Sustainable Development in Africa
NORAD	Norwegian International Development Agency
NRM	Natural Resources Management Project
SADCC	Southern Africa Development Coordinating Conference
SIDA	Swedish International Development Agency
TGLP	Tribal Grazing Lands Policy
UNDP	United Nations Development Programme
UNEP	United Nations Environmental Programme
USAID	U.S. Agency for International Development
WINROCK	Winrock International Environmental Alliance
WRI	World Resources Institute

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BOTSWANA'S NATIONAL CONSERVATION STRATEGY: Organizing for Implementation

I. INTRODUCTION

This report is based on a field visit to Botswana from July 2-18, 1994. During that time, the author worked in tandem with Clement Dorm-Adzobu, NESDA/WRI, who was visiting from his base of operations in Abidjan. We worked together and learned from each other as we struggled along with many citizens of Botswana to assist the progress of the National Conservation Strategy (NCS).

That experience is reflected in this report. It is organized into three sections. The first section introduces the task and the perspectives used to enlighten it. The second section presents the evolution of the NCS process and the situation as of the visit. The third section assesses the implications of the situation, combines the assessment with issues arising from the interviews and workshop, and offers some suggestions to facilitate implementation. Four appendices are included, which elaborate on the post-fieldwork workshop, identify contacts made, and provide direct documentation for some of the points made in the text.

This introductory section provides the background of Botswana's environmental setting, identifies the scope of the exercise, and presents the analytical frameworks that will be used to assess the field conditions. Each is noted below.

A. The Botswana Natural Resources Setting

There are three main features of Botswana's natural endowment that contribute to the character of the country's environmental setting. First is the Kalahari Desert and the semi-arid areas bordering it. The country is mainly a water-scarce area and the abundant flora and fauna reflect this fact. Second is the presence of the delta of the Okavango River -- a vast inland delta that belies its arid surroundings and appears as a stark contrast to the Kalahari. Third is the presence of valued mineral deposits, including diamonds. These three natural features capture human attention.

But the feature that propelled Botswana to international attention in the 1960s was cultural -- the presence of the Khoisan people in the heart of the desert. Both serious studies of this culture (eg, Silberbauer, 1965; Lee and Devore, 1971) and popular travelogue-type accounts (Van der Post, 1964) made a world-wide audience aware of some of the people of Botswana as well as the abundant wildlife that rivaled the animals of East Africa. Indeed, the serious studies catalogued the interaction between desert dwellers and the natural ecology of the area, impressing upon outsiders the magnificence of the ungulate migrations and the contrasting beauties of the desert and delta ecosystems.

The remote area dwellers, however, constitute only a small portion of the population. At independence in the mid-1960s Botswana had only about 400,000 people within its borders. But today the population is approaching the 1.5 million mark. And nearly one third

of that number is concentrated in a string of urban areas that follow the paved road that traces a diagonal line along the southern fringe of the country from southwest to northeast.

Moreover, the expanding population contains Tswana, Kalanga and other Bantu-language groups, many of which are cattle herders. In the 1960s, 70s and 80s fences were erected throughout the country to keep the cattle from the wild mammals that carried hoof and mouth disease. This led to the interruption of the wild animal migrations and decreasing populations of those animals. This, in turn, recaptured international attention. Indeed, over the past twenty-five years, much national attention, too, has been focussed on the alternative potential uses for the pasture/wild lands of the Kalahari surrounds and the water of the Okavango.

The mineral deposits have provided financial assets that have allowed the Government of Botswana to invest in human resources, including international educational opportunities, and to provide public housing in the growing urban areas. The management of the diamond mines has been entrusted to Debswana, a partnership between the Government of Botswana and the DeBeers diamond conglomerate based in South Africa.

In 1990 Botswana adopted a National Conservation Strategy to mediate, integrate and refocus the natural resource concerns reflected in the above history and to assess environmental issues in the light of future human needs. An invitation to assess the implementation of the NCS policy prompted this study.

B. Background and Scope of the Study

The specific purpose of the Botswana study is to examine management dimensions of the policy reforms included in the NCS, and to clarify which implementation issues are most critical for progress. The scope of work also included organizing and conducting a workshop following the completion of data gathering to share the team's initial findings and to assist the NCS coordinating agency in its efforts to implement the NCS.

This exercise is one in a series of studies conducted by USAID's Implementing Policy Change Project (IPC) of the links between policy formulation and implementation in the natural resources sector in Africa, with funding from the Africa Bureau. Previous studies have included an overview of implementation issues in natural resources management (Brinkerhoff and Gage, 1994), an analysis of Mali's forestry policy reforms (Brinkerhoff and Gage, 1993), an examination of Madagascar's experience implementing its National Environmental Action Plan, or NEAP (Brinkerhoff and Yeager, 1993), and an assessment of The Gambia's NEAP implementation experience (Gustafson and Clifford, 1994). The Botswana study builds on these prior efforts by applying a common analytic framework. That framework is the implementation template.

C. An Implementation Template for Assessing the Botswana Experience

This study applies a framework that has been found useful for explaining reasons for successful and unsuccessful policy implementation (Mazmanian and Sabatier, 1989). This

framework has been applied in the earlier IPC analyses cited above, and has helped to identify potential problems and opportunities as well as reasons for past performance levels.

The framework depicts policy implementation outcomes as a function of three categories of variables: the problem the policy is designed to solve; the organization and management of the implementation process; and the socio-political and economic setting in which implementation occurs. These three general sets of factors are made more specific to facilitate assessment. The specific components of these variables are:

1. Specification and consistency of objectives - that is, the policy and supporting statutes contain clear and consistent objectives and/or criteria and mechanisms for solving goal conflicts;
2. Incorporation of adequate knowledge of cause and effect - that is, the policy is based on an accurate understanding of the factors and linkages contributing to the situation the policy is designed to affect;
3. Appropriate structures and processes - that is, the implementation process is structured to mobilize the action required and obtain the compliance required for the effort to work;
4. Management capacity and commitment - that is, the required strategic management skills and personal commitment are in evidence among the leaders of the effort;
5. Stakeholder and legal support - that is, the policy receives ongoing support from key constituency groups within a neutral or supportive legal system; and
6. Socio-economic and political stability - that is, the policy is not undermined by social conflicts or radical shifts in institutional priorities or resource availability.

No policy is likely to encounter a perfect alignment of all six of these conditions. But comparing the reality to the ideal along each dimension helps to identify obstacles to policy implementation. These six dimensions provide a template that can be overlaid on the Botswana NCS experience to assess potential strengths and weaknesses. That assessment occurs in Section III of this report.

A second perspective has also been found useful for assessing the implementation requirements of environmental policies in Africa and other developing country settings (Honadle, 1994; Honadle et al., 1994). That perspective, a typology of environmental policy thrusts, is introduced below.

D. Policy Dimensions and Issues for Botswana

When examining policy alternatives for the creation of sustainable societies, much of the discussion is too narrow. Single approaches, such as market-based incentives or banning and regulating activity, command most attention and they are often presented as mutually-

exclusive alternatives. A more productive approach is to consider a range of four major clusters of policy options as an integrated web of railings that direct human activity. Failing to examine the entire range can lead to contradictory and catastrophic results.

The four clusters that we present here are: command and control, direct incentives, stakeholder self-management, and indirect incentives (see Honadle, 1994). These policy clusters constitute a viable alternative to traditional economic policy categories, such as fiscal policy, trade policy, and so on; and can substitute for sectoral policy divisions, such as social policy, economic policy, transportation policy, agricultural policy, etc. The value of this typology is threefold: first, it is comprehensive enough to include nearly any conceivable policy; second, it allows a direct focus on environmental consequences whether they are intended or not; and third, it provides an integrated and applied focus rather than a set of categories based on disciplinary or institutional slices of reality. Each is noted below.

Command and Control

The first policy cluster is **COMMAND AND CONTROL**. This is familiar to everyone. It is the sequence of policy or legislation followed by regulation. It is a common approach to protection of wildlands, species and resources. National environmental protection acts, enforcement of maximum pollution levels, setting aside natural areas for parks or research, limiting timber cutting or requiring certain silviculture practices, restricting access to precious minerals, banning commerce in ivory or endangered species, or even forcing compliance with hunting and fishing laws all provide examples of this approach.

The image it evokes is one of denying people the right to do something and it explains why natural resource management agencies and regulatory bodies are seldom popular. Indeed, command and control policies are directive or restrictive in nature. And they often arouse unsympathetic emotions among those who wish to use a resource for their own purposes. Restriction on the diversion of the Okavango waterway has raised such emotions.

Botswana's game laws are another example of this approach. Likewise, limits on access to mineral wealth and enforcement of pollution control measures in urban areas, such as Gaborones or Lobatse, reflect this approach to environmental policy. The laws establishing national parks, reserves and wildlife management areas provide a particularly visible and well-known example of command and control in Botswana (see Republic of Botswana, 1986; Republic of Botswana, 1971; Spinage, 1991).

Stakeholder Self-Management

The second option is the polar opposite of command and control. It is **STAKEHOLDER SELF-MANAGEMENT**. This is giving total control of a natural resource to a local population and trusting that they will manage it on a sustainable basis. The assumption is that they have a long-run stake in maintaining the resource and the most effective way to ensure sustainable use is to let them do it.

Self-managed situations result from enabling policies that devolve authority, recognize and legitimize pre-existing traditional authority structures and resource management systems, and foster local empowerment. Decentralized administrative strategies, privatization initiatives, Aborigine reserves, community resource management programs, local eco-development programs and many social forestry efforts throughout the third world provide variations on this theme.

Stakeholder self-management is increasingly appearing as a conservation and management strategy throughout the globe and across sectors. In the wildlife area, for example, giving local communities a monopoly on the meat, hides and other products from wild animals, creates an incentive for sustainable management. An illustration is Zimbabwe's Campfire program, where local communities determine what level of hunting is appropriate and they receive income and employment from wildlife-viewing tourism.

The USAID-assisted NRM project is experimenting with a similar approach in Chobe District in the north of Botswana. In this experiment villagers negotiate concessions for tourism and hunting in their area. They set the overall levels of offtake and tourist density in collaboration with the Department of Wildlife and National Parks (DWNP) and they determine specific aspects of the concession contracts, such as employment and training provided to villagers, cleanup of evidence of activity, limitations on routes and areas of activity, and density of tourists/hunters in specific areas (see: Appendix B; Ford et al., 1993).

There is also discussion of a similar approach to woodlots. Villages near urban areas experience the invasion of trucks (lorries) that take wood for urban consumption. Since the dryland forests and bush are not controlled by the local community, the availability of wood diminishes without compensation. A local resource management structure would change this situation.

Direct Incentives

The third policy cluster, lying between the extremes of self-management and command/control, is DIRECT INCENTIVES. Discussion of pollution credits, water markets, stumpage fees, green labelling, and other examples of market-based environmentalism fit into this category. This focusses on the structure of benefits and costs surrounding a particular resource, product or process. Direct incentives enable behavior, or they require it as a qualification for rewards.

Subsidized costs for logging equipment, agriculture or aquaculture inputs, marketing assistance or the establishment of favorable prices for certain products are examples of direct incentives that are commonly found in third world settings. In fact, attempts to establish direct incentives have been integral to development projects for decades and both bilateral and multilateral donors routinely incorporate price incentives into project investment packages. Indeed, the intention to use direct incentives for conservation is noted in Botswana's National Conservation Strategy. For example, the NCS envisions the selective introduction of price incentives and capital grants for the commercialization of new veld products as well as the introduction of direct incentives to encourage recycling in urban areas and settlements (see

Appendix D, p. 11). There is also discussion of using incentives as part of the solution packages for the rangeland deterioration and water resources issues (ibid, p.9).

Indirect Incentives

The fourth cluster is **INDIRECT INCENTIVES**. This is a particularly pervasive set of influences on resource use because it usually results from the pursuit of other, seemingly unrelated, objectives and thus it is ignored by many environmental observers.

Policies promoting labor-intensive technologies often have benign environmental impacts due to limitations on the use of large, environmentally destructive equipment. Tax codes intending to promote reinvestment in private enterprise, structural adjustment programs opening up previously closed economies, favored access to overseas markets, or tariffs biased against specific technologies can be examples of this policy cluster. Although they may encourage either protective or exploitative behavior, indirect incentives often work against sustainable resource use. But because of their indirectness, the impact may be misunderstood or ignored.

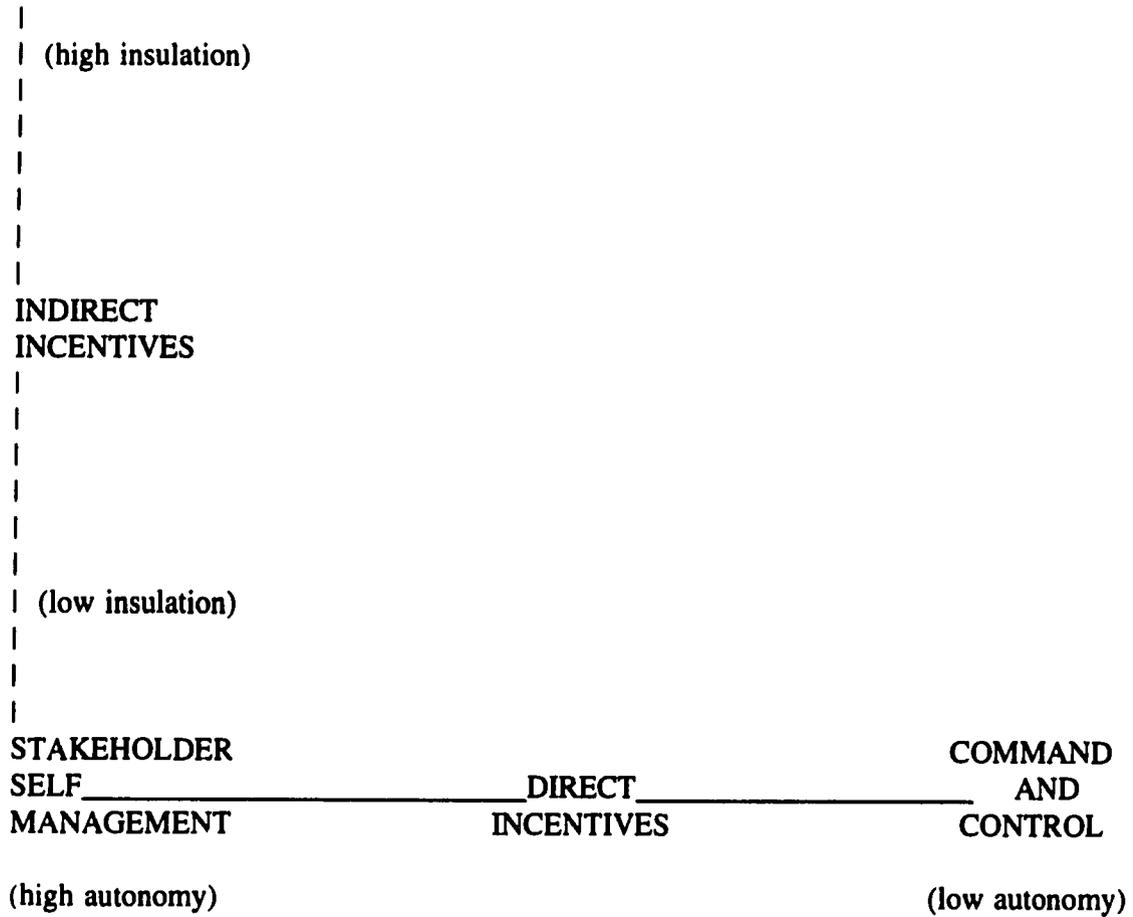
Tax codes may encourage inefficient or environmentally-destructive behavior. Across-the-board export levies, for example, can make non-timber forest products less competitive for producer attention and speed deforestation. Indeed, indirect, non-environmental, policies can act to sabotage the more direct and publicized conservation policies. In fact, indirect policies are actually on a dimension different from the other three, and it is the balance between the two dimensions that can determine the success of environmental policy implementation.

This is represented by Figure 1. In this display, the horizontal axis with the direct policy clusters represents the degree of autonomy given to the user of a natural resource -- command and control represents the lowest autonomy, whereas self-management is the highest. The vertical axis with indirect incentives represents the degree of insulation of the policy -- the higher on the axis the policy lies, the less influence it has on the direct policies, the lower it appears the less insulated it is and the more it affects the direct policies. But indirect policies can be spread all along this axis. Some may be peripheral to environmental concerns, whereas others can negate the effects of explicit environmental policies.

This figure suggests that there is a balance point between direct environmental policies and indirect policy influences. When indirect policies are stronger, national conservation strategies and environmental action plans are not likely to encounter a level implementation field. Only when the direct policies are stronger is implementation likely to proceed smoothly. It also offers insight into possible sequencing strategies for implementing environmental action plans and national conservation strategies. Studies of the management of agricultural development in Africa suggest that an early "success" helps to mobilize stakeholders and create the momentum for a program to succeed (Honadle, 1986). This policy cluster perspective can help to identify where indirect policies offer the least resistance, and thus point toward potential candidates for early efforts. It can also highlight those difficult areas where early confrontation might be avoided.

Figure 1

**DIMENSIONS AND
CLUSTERS OF POLICY OPTIONS**



This perspective is general enough to be applied in a wide range of settings. And it is specific enough to be used to identify potential conflicts between the NCS and other policy initiatives in Botswana. It also intersects with the first three dimensions of the six noted in the template: consistency of policy objectives, attention to causality and appropriate implementation structures. For example, if the objectives of the NCS are not consonant with other major legislation (eg. the Tribal Grazing Land Policy) then indirect incentives thwarting the NCS may be expected. Likewise, if the causes of the problems the NCS addresses are misunderstood, then the array of indirect incentives that block implementation are likely to be high. And if either of these is the case, then the structure is less likely to be able to manage the inconsistencies. Thus the policy cluster framework complements the implementation template introduced above and helps to point toward potential trouble spots for the NCS.

The discussion above sets the stage for this study. The remaining sections of this report will describe the situation as of the field visit to Botswana and assess the problems and opportunities facing NCS implementers.

II. THE NATIONAL CONSERVATION STRATEGY

The actions leading to the National Conservation Strategy date back to 1983. This section of this report traces major events from 1983 to the situation during the field visit in 1994 and outlines key aspects of the current situation.

A. Evolution and Process

In 1983 a SADCC workshop on the environment was held in Gaborone. That workshop was sponsored by UNEP and the UNDP. Later in December of that same year, a team of UNEP experts consisting of a "Clearing House Mission" completed a report that proposed 16 projects to deal with Botswana's most serious environmental problems.

One of these projects was the preparation of a National Conservation Strategy along the lines of UNEP's World Conservation Strategy. This would be one of the national building blocks in a global strategy statement, and Botswana would be one of the first countries to construct its segment. The Government of Botswana accepted that proposal and the Department of Town and Regional Planning in the Ministry of Local Government and Lands was given responsibility for preparing the strategy.

Actual preparation of the strategy began in 1985 when the Botswana government invited the World Conservation Union (IUCN) to provide technical assistance. Funding for that assistance was then forthcoming from members of the donor community, including NORAD, SIDA, the EEC, the Netherlands, UNDP, UNEP and USAID.

The preparation process combined expert analyses with extensive consultation throughout Botswana society. Twenty seven technical reports were produced by experts in government ministries and the University of Botswana. Additionally, numerous meetings and interviews were held throughout the country to elicit views and involve people in the formulation of this national strategy. The process was highly consultative, reflecting the very deliberative style of management that Botswana is so noted for.

In June/July 1987 the Botswana Society hosted a workshop/seminar on the National Conservation Strategy at the request of the Ministry of Local Government and Lands. The report on that seminar (see Cooke and Campbell, 1987) served as the foundation for the policy paper that was issued after government acceptance of the NCS in 1990.

The NCS was adopted by the Cabinet in 1990. An NCS Advisory Board was subsequently established. Its role was envisioned as involving:

the sustainable use of natural resources and thus the operation of the NCS act. In cases of doubt concerning the discharge of environmental responsibilities/obligations by organizations and individuals under the act, the Board would provide guidance as to how the obligations may best be met. The board would similarly have the prerogative to advise the relevant organization/s where it believes that the environment is being compromised through either

policies or activities which merit review. In addition, the Board would be responsible for the presentation of an annual State of the Environment Report...

Supplementary to the actions of individual ministries, the Board would also encourage and assist sectoral ministries to undertake a review of existing legislation, having regard specifically to the objectives of the National Conservation strategy (NCS, para 7.4.2).

Other specific functions include: coordinating policies, determining research needs, establishing educational and training programs, coordinating the preparation and evaluation of Environmental Impact Assessments, overseeing promotional campaigns, and advancing the contributions which environmental data systems and economic tools can make to assist decision-makers (*ibid.*, 7.4.4). This would be accomplished through an NCS Coordination Agency acting on behalf of the Board.

B. Situation as of the Assessment

The National Conservation Strategy established an NCS Advisory Board responsible to the Cabinet and an NCS Coordinating Agency to implement the strategy. In the words of the strategy the coordinating agency was expected to "start small" with only four professional experts and a Director during the first year, growing to twelve professionals plus director within five years. This was considered the minimum needed to implement the strategy. The coordinating agency would work with "liaison officers" in each ministry and with NGOs and local liaisons to meld government operations into the overall priorities of the national strategy. The agency would also directly implement selected projects as components of the NCS.

As of April, 1994, the staff complement of the coordinating agency included two expatriate advisors, the executive director and four professionals. Four other junior professionals were added during the next two months. The coordinating unit was not directly implementing projects but was interacting with line ministries executing projects and with local authorities. Liaison officers were in place in most relevant ministerial departments.

No State-of-the-Environment Reports had yet been issued. NCS Agency leadership in controversial issues and environmental impact studies was noticeably absent (see, for example, Scudder et al., 1993). The major preoccupation of the Coordinating Agency was shepherding an advisory committee through the process of choosing a permanent home for the Agency (see NCS Advisory Board, 1994). The general perception among observers of environmental issues was that the NCS initiative was stalled.

III. IMPLEMENTATION ASSESSMENT OF THE NATIONAL CONSERVATION STRATEGY

This section uses the template and policy clusters noted in Section I to assess the findings of Section II. First, the template.

A. Overlaying the Template

The template used by the series of case studies undertaken by the IPC project is based on prior research indicating that each of these dimensions is associated with successful policy implementation. Thus not exhibiting these characteristics suggests a high chance of failure in implementation. The question is, to what extent does the Botswana NCS experience reflect these factors?

1. Specification and consistency of objectives

Government Paper No. 1 of 1990, "National Policy on Natural Resources Conservation and Development", takes the national conservation strategy and focuses it on highly specific, clear objectives (see Appendix D). Indeed, the articulation of issues/problems combined with solution packages provides very clear guidance.

The six issue areas targetted by the NCS are:

1. pressure on water resources;
2. rangeland degradation;
3. depletion of wood resources;
4. overuse of veld products;
5. industrial/urban pollution and enhancement of settlements; and
6. conservation of wildlife, heritage and cultural resources.

The NCS deals with these issues separately. The harmonization of the different efforts receives less emphasis than the aim of bringing the national policy matrix into harmony with the NCS objectives. Theoretically, the NCS will pervade all policy decisions. But clear criteria for assessing tradeoffs are lacking.

Because the NCS is a national strategy that encompasses both development and conservation objectives, there is bound to be some inconsistency. Although the rubric of "sustainable development" is intended to integrate competing objectives into a complementary strategy package, the overarching nature of the strategy will invariably encounter contradictions, either real or perceived. Nevertheless, the Botswana NCS does exhibit relatively high clarity and consistency of objectives within itself. But it does not provide clear guidance or mechanisms for resolving competing demands on resources.

2. Incorporation of adequate knowledge of cause and effect

Botswana is a highly studied location where applied studies have had a good record of informing and affecting policy, especially compared with many other places (see Hitchcock et al., 1987). At the same time, the Kalahari, and the environment surrounding it, contains many microregions where a short distance can mean great percentage differences in rainfall and biotic communities. This great variation makes knowledge of cause and effect difficult to codify and survival solutions difficult to impose over wide geographic expanses. When this is combined with the very imperfect knowledge the scientific community holds concerning desertification in Africa, the result is great uncertainty. And the secrets of the Kalahari are combined with the mystery of the Okavango, an inland river that disappears under the sands of the desert.

So there is scientific uncertainty that affects the NCS. However, partly due to the wealth of studies, there is also a body of knowledge surrounding the solution packages proposed in the national policy. For example, stakeholder self-management policies fit well into an arena pervaded by geographic variation and the limited transportability of survival algorithms. Thus the wildlife solution package and the NRM project's approach in Chobe District are consistent. Additionally, the TGLP has been studied incessantly and critiqued constantly -- the incentive system is clearly uninsulated and probably in opposition to the overall NCS goals -- but it is so entrenched that a combination of new incentives, stakeholder self-management and command and control may be needed to turn it around. And the urban pollution issues are relatively straightforward and amenable to a command and control approach.

The solution packages linked to each of the targetted issues imply an understanding of the causes of the problem situations. And some expected actions are very specific, such as enforcing the Agricultural Resources Conservation Act or the Town and Country Planning Act, strengthening the Range Ecology Unit within the Ministry of Agriculture, or introducing specific subsidies. But the solutions are also broad, using general terms such as "price incentives" or incentives "to encourage ...", and including public awareness campaigns and research. Indeed, the trust to the coordinating agency to develop a series of "state of the environment" reports suggests both that monitoring is needed and that baselines are incomplete.

Given this range of knowledge of cause-effect some formal monitoring is called for. The NCS gives the coordinating agency the authority to conduct environmental impact assessments and state-of-the-environment reviews, but no specific targets or monitoring systems are included in the policy design. Monitoring is left entirely to the initiative of the implementing agency.

3. Appropriate implementation structures and processes

This dimension exhibits a mixture of positive and negative characteristics. On the one hand, the extremely consultative approach fits well into Botswana's culture and process requirements (Liphuko, 1989). On the other hand, the extreme dissatisfaction voiced by many

observers and the obsession of the NCS coordinating agency with the placement of a permanent agency (NCS Advisory Board, 1994) suggests that the structure is inappropriate. Moreover, the workshop held by the study team surfaced concerns that the use of liaisons in line ministries was an inadequate structure for situations requiring more than just information sharing (see Appendix A).

Although the coordinating role is stressed in the NCS documents, there is also a strong recognition that the NCS goals and solution packages need to be integrated into key national decisions. Since the main actor in setting the agenda and formulating investment strategy is the Ministry of Finance and Development Planning (MFDP), this ministry must play a key role in NCS implementation. But MFDP has kept an arm's distance from NCS. Even though it is represented on the NCS board, it balks at either giving the agency a new home or working closely with it. It describes the core technology of its mission (economics) as at odds with the core technology of the NCS (ecology).

There is also the issue of linkages to local (district and sub-district) actors. Although Government Paper No. 1 of 1990 is widely circulated and is consulted by many local bureaucrats in their day-to-day activities, and although there are examples of the NCS coordinating agency sending staff members to temporarily assist local authorities (Land Boards, District Councils, etc.), nevertheless the national/urban location of the agency is likened to a tree without roots. Many observers questioned the ability of the NCS agency to make significant change from its present organizational location. Even though it is positioned within the Ministry of Local Government and Lands, and thus its home ministry deals with district level coordination, still the lack of a permanent presence in rural areas was seen as a handicap.

Thus the structure is depicted as having two weaknesses: not enough clout to integrate NCS perspectives into key national decisions; and not enough presence to influence local actions. However, as discussions in the workshop revealed (see Appendix A), there is no clear restructuring solution. The real problem may be a process one.

The process consideration is more complicated than the structural one. In four years there has not been a recognized major accomplishment by the NCS. But both the formulation of the NCS policy and the mobilization of the NCS coordinating agency have followed a process of lengthy, repetitive and inclusive consultations among government personnel and community leaders at all levels.

The 1990 government paper and NCS document closely reflect deliberations conducted in 1987 (see Cooke and Campbell, 1987). It took three years to formulate the policy. But from the village-level kgotla to the national parliament, the Botswana way is to consult, massage and build consensus before acting. Once consensus exists, then action is taken. But slow motion precedes definitive action.

The dissatisfaction with the NCS coordinating agency performance appears to be twofold: First, many expected action once the strategy was adopted in 1990. Second, a concern emerged among some observers that the bureaucracy had accepted the NCS

objectives but senior policy-makers had not internalized the policy they endorsed. This then produced underfunding and limited support and resulted in low management capacity.

4. Management capacity and commitment

The NCS agency is understaffed, underbudgeted and overstretched. For example, the total staff is an executive secretary, eight professionals, and a support staff of eight more people. And half of the professionals had recently come on board as of July 1994. Technical capacity is thus limited.

Since the staff is called upon to represent Botswana at international environmental meetings, the combination of small size and a proliferation of meetings has meant that some staff are viewed by other government officials as conference goers rather than problem solvers. This has not enhanced the perceived capacity and commitment of the unit. This is unfortunate because it only presents part of the story. In the districts, knowledge of the government paper was high (most people interviewed had copies and had possessed them for a considerable period of time) and there was an appreciation for specific help provided by agency staff to district personnel. But in the capital, the perception was one of inaction on the NCS agenda.

As of the field visit for this study, international travel and participation in the task force reviewing the placement issue appeared to be the NCS agency's major ongoing activities, combined with routine liaison interactions. The unit had no action plan, either for human resource development among its staff, for the execution of tasks enumerated in the government paper, or for building stakeholder support to make the changes needed to fully implement the NCS mandate.

There are two core issues buried in the situation described above. The first involves the difficulty of managing a "network" of actors rather than managing a direct staff. The second involves the need for leadership to generate momentum early in the life of a new initiative or else watch it bump into opposition and stall.

The first issue is described as follows in the IPC study of Madagascar's National Environmental Action Plan: "The defining feature of implementation networks is that they cross individual organizational boundaries. To accomplish the overarching goals of the network requires that individual implementors somehow combine their efforts in ways that are mutually supportive" (Brinkerhoff and Yeager, 1993: 34). An inability to control other actors, and a need to operate in a style that is based upon influence, characterizes effective leadership under these circumstances (see Appendix A for an analytical approach to this problem).

Regarding the second issue, power accrues to those who are seen to already have it. An image as a weak performer tends to gather reinforcement and sometimes the incorrect perception can become the reality. Numerous reviews of agricultural programs in Africa and elsewhere have suggested that early evidence of performance can be crucial for later performance, especially when a strategy is based on influencing others rather than just controlling limited resources (see Honadle, 1986).

The perception of the NCS Agency as stalled may be partly true and partly an image problem because action in a network is often diffuse and not attributable to a single actor. Nevertheless, the perception problem itself is real. These two linked core issues surface below in the assessment, in the recommendations and in the workshop.

5. Stakeholder and legal support

The legal requisites for implementing the strategy already exist (see Annex 1, Figure 2 of the NCS). Ranging from command and control dimensions, such as the 1971 Atmospheric Pollution (Prevention) Act, to stakeholder self-management experiments, such as the Lesoma local wildlife and tourism management initiative (Ford et al., 1993), the key laws, regulations and procedures are either in place or are evolving. As implementation proceeds, weaknesses will probably surface and new instruments may be developed. But at this stage, the legal infrastructure for implementation is available.

An extensive national development planning process also exists. Although there are some instances where plans and execution have not fully merged, ministry structures and procedures exist from the sub-district to the national level. There is an operating system.

Stakeholder support is not a generic element. The five issues/problems, and the accompanying solution packages, articulated in the 1990 government paper will each have different (but overlapping) stakeholder sets. One emerging area of contention is urban-rural resource priorities. As the country urbanizes, town dwellers import resources from outlying areas, depriving rural folk of their use. This is already inducing contested rights to trees. And Botswana is far enough south of the equator that fuel for heating is crucial for households and businesses.

There does appear to be general support for the NCS. The academic and non-governmental organization (NGO) communities seem to be among the most ardent and vocal supporters of full and swift implementation. National NGOs, such as the Kalahari Conservation Society, have served as information and advocacy conduits both to local communities and to international environmental NGOs (see Neme, n.d.). The salience of the NCS for the general public was revealed during the field visit for this report, where a debate held at the University of Botswana between two candidates for national political office had both claiming to be the more committed to the NCS. They were also in an urban setting playing to urban perspectives.

But the rangeland issue is the most contentious of the five problem areas -- here is where stakeholder support may be most weak. The cattle culture has strong roots in Botswana, and cattle owners have not been supportive in the past of efforts to increase offtake, reduce cattle holdings, or limit commercial ranching schemes in favor of the more traditional cattle post system, even though numerous reports and studies have questioned the policies and practices for over a decade. These unsympathetic stakeholders wield influence and, in some cases, political power.

Even so, the winds of change may be blowing. Some observers suggested that it is the elder generation that is the cattle-holding group. The younger, more educated, cohorts are less tied to the cattle culture and more appreciative of issues such as biodiversity. The stakeholders on each issue are not homogeneous, and they may be changing over time. The NCS agency has the opportunity to provide a forum where new coalitions of stakeholders can close ranks, consolidate support, and pursue the NCS agenda.

6. Socio-economic and political stability

Botswana was never a colony. It was a protectorate of the British crown. This circumstance occurred as a result of a petition to Queen Victoria by Khama, a chief of the Tswana, who saw the inroads of Cecil Rhodes' British South Africa Company's empire in central southern Africa and the Boer advance in what was to become the Republic of South Africa. He wished to ally himself and his people with a strong protector to avoid domination by either of these emerging forces. Thus the Bechuanaland Protectorate was created. Bechuanaland became independent Botswana in 1966. Sir Seretse Khama, a descendent of the Khama, was its first president.

Although not without its critics (see Holm and Molutsi, 1989), Botswana is commonly depicted as the best example of democracy in Africa. Political stability, tolerance for dissent, a consultative approach to decision-making, and a well-managed economy are its hallmarks. Indeed, international donors such as the African Development Bank and World Bank consider the loan portfolios for Botswana to be among the best administered ones on the continent. In fact many observers see Botswana as being highly selective in its acceptance of donor overtures.

Botswana also has managed to walk a political tightrope successfully. During the period of Apartheid in South Africa, Botswana was both a front line state opposing the regime to the south and an informal "off-shore" gateway to its sequestered neighbor. In fact, during the early years of independence its currency was tied to the Rand.

Stability has also been enhanced by mineral wealth. Diamonds especially have provided a secure revenue source during the many periods of drought that have descended on the nation since independence. Coal, nickel and copper deposits also contribute to local energy sources and foreign exchange. And careful management has characterized the Botswana practice, even to the point of preferring to import energy from the region rather than burn the coal and pollute the local air. Availability of foreign exchange made this an option.

Unlike some other nations with mineral wealth, resource squandering and capital flight have not been the norm. Indeed, mineral income has been used to establish a national trust and a major use of those funds has been the development of public housing in the urban areas. In addition, the country has taken care to manage both its own resources and the donor portfolios carefully. Evidence of this can be found in the World Bank's World Development Reports. In the 1992 edition, for example, Botswana has the fourth lowest external debt ratio of the 101 countries listed as low or middle income. Another factor cited in Botswana's

favor is the efficiency and effectiveness of the country's civil service, which is in sharp distinction to the experience of many other countries on the continent (see, for example, Picard, 1987).

The future does contain uncertainties, however. Political events in South Africa combined with tightening donor budgets are likely to make external assistance scarcer than in the recent past as the donor community scrambles to assist the new regime in Pretoria. The integration of agricultural policies in the European Community is likely to shrink the overseas market for Botswana beef, especially in the long run. And the rising population continues to make demands on scarce water supplies. So there will be social pressures to contend with. However, both past experience and the prognosis for the future suggest that Botswana should be considered an example of socio-economic and political stability.

B. Policy Clusters and Implications

The NCS explicitly notes and anticipates policy actions that fit under the rubric of command and control and direct incentives. The NRM project is actively engaged in activities that fall under the stakeholder self-management policy category. Thus the three directly environmental policy clusters noted above are likely to be part of NCS implementation.

The previous discussion, however, also noted that it is often the indirect policies that undermine environmental policy initiatives. Unless a bright light is shined on these seemingly peripheral rules and activities they can erode attempts to achieve sustainable development. This appears to be the case with Botswana's NCS. A review of the TGLP and a wide array of other policies should be undertaken to determine those that are inconsistent with NCS objectives.

Fortunately, the need for this is anticipated in Government Paper No. 1 of 1990, which states:

The NCS Advisory Board is intended to play an important role in the operation of the NCS act. In cases of doubt concerning the discharge of environmental obligations by organizations and individuals under the act, the Board will provide guidance on how the obligations may best be met. The Board will similarly advise organizations where it believes that the environment is being compromised through either policies or activities which merit review. In addition, the Board will be responsible for presenting an annual/biennial State of the Environment Report and for coordinating reviews of environmental legislation (p. 15).

The State-of-the-Environment Review, then, should go beyond indicators of the condition of the physical environment to include an inventory of public and private policies consistent and inconsistent with the NCS. And the process of policy harmonization should be recorded over time. Moreover, the degree of implementation of these policies also needs to be noted. Are policies enforced? Do they affect the actions of public and private decision-

makers? What costs and benefits are associated with adherence to these policies? All of these questions deserve consideration in the state of the environment report. In addition, there is also the question of consistency among the different policy clusters used in each of the NCS solution packages. If they work at cross purposes, implementation will falter. Harmonization is important.

C. Immediate Considerations and Recommendations

The assessment above identified both strengths and shortcomings in the implementation of the NCS to date. This section adds to the above by highlighting some key needs for immediate action. As both the discussion above and the details of Appendix D show, the NCS was designed to employ a combination of self-management, command/control, and direct incentive measures to achieve sustainable development. A source of implementation problems, however, (especially with the range degradation issue) is a set of strong indirect incentives working against the NCS mandate. This keeps some actors from becoming NCS allies.

A second problem emerges from the lack of a prominent achievement by the NCS coordinating agency. This has resulted in many natural (and willing) allies aligning themselves against the agency because they see it as not living up to its purpose. Moreover, powerful ministries whose cooperation is essential for success can ignore the NCS coordinating agency because they see no signs that it can influence their operational arenas. Lack of success breeds lack of respect, which leads to lack of resources and less chance for success. Clearly, an immediate achievement is needed.

In the short term, then, the following actions are recommended:

1: THE NCS COORDINATING AGENCY SHOULD PRODUCE A STATE-OF-THE-ENVIRONMENT REVIEW.

This review should not only identify the condition of the physical environment disaggregated into the five NCS problem/issue areas, but it should also identify direct and indirect policies and incentives affecting the achievement of the NCS goals. Especially national and sectoral policies, laws, market forces and operating procedures working against the solution packages should be clearly identified.

2: THE NCS COORDINATING AGENCY SHOULD SEEK ADDITIONAL FUNDING TO SUPPORT THE REVIEW.

The review should be a major effort to establish a format for future reporting that includes both physical and incentive dimensions and to document these factors in this first review. Collaboration should be pursued with MFDP to seek donor funding and assistance. Donor assistance might also be obtained to write the scope of work for the review. But the responsibility for managing and producing the report would lie with the NCS agency.

With the above as the highest priority, two other initiatives should also be undertaken. They are:

3: THE NCS AGENCY SHOULD WORK WITH THE HIGHEST LEVELS OF MFDP TO DETERMINE HOW NCS CONSIDERATIONS COULD BE INTEGRATED INTO THE PROJECT DEVELOPMENT PROCESS.

and

4: THE NCS AGENCY SHOULD DEVELOP STRATEGIC PLANS FOR STAFF DEVELOPMENT AND IMPLEMENTATION OF THE NCS MANDATE.

For the short run, these initiatives should take priority over debates about the organizational placement of the agency. If these objectives are accomplished, the tradeoffs among different organizational placements and configurations may become more clear. And the question of organizational placement can be recast as part of an evolving process, rather than as a permanent decision.

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APPENDIX A: WORKSHOP

**NESDA - USAID WORKSHOP
ON THE NATIONAL CONSERVATION STRATEGY
July 14-15, 1994
at the
Botswana National Productivity Centre
Gaborone**

A workshop was held on July 14 and 15, 1994, to inform participants of the study team effort and to assist the National Conservation Strategy Agency in its efforts to launch the implementation of the National Conservation Strategy. The morning of the first day was devoted to overviews and presentations on the issues confronting the agency complemented by an introduction to the experiences of other African countries in their efforts to implement National Environmental Action Plans (NEAPs). The African experience, reviewed by Dr. Clement Dorm-Adzobu of NESDA/WRI, emphasized the question of organizational placement and how the resolution of the issue varied from country to country.

The afternoon of the 14th and the morning of the 15th were used to engage in group exercises that addressed issues that emerged as important during the team visit. For example, the question of which stakeholders held the keys to policy implementation was prominent in interviews. Likewise, the issue of the placement of the NCS agency was the topic of numerous meetings attended by the team as observers. At the same time, a panel discussion held at the university the evening of the 14th stressed the need for immediate action regardless of the placement of implementation responsibility. Thus the issues addressed were of immediate concern to NCS Coordinating Agency staff and NCS stakeholders.

This appendix describes the workshop process and products. It is composed of the following:

1. summary products of the exercises;
2. the agenda; and
3. a list of participants.

Each appears on the following pages.

WORKSHOP EXERCISE OUTPUT

Thursday afternoon, July 14, workshop participants broke into three small groups focussing on three issues highlighted in the NCS. One group addressed the issue of range degradation, one examined water quality and availability, and one looked at deforestation and wood supply.

Each group identified obstacles that would have to be overcome to adequately deal with each issue. These obstacles were listed down the vertical axis of a matrix. Then the set of stakeholders that needed to be involved in solving the problems was listed across the horizontal axis with the NCS agency listed at the head of the first column. This then allowed a "stakeholder analysis" to be undertaken (see Honadle and Cooper, 1989). With "Xs" placed in the cells to indicate which stakeholders need to be involved in which sub-problems, the matrix displayed where the NCS agency controls adequate resources to deal with problems and where cooperation from other actors is needed. Situations of "control", "Influence", and "appreciation" were identified.

The concept of coordination was disaggregated into three component parts of "information sharing," "resource sharing," and "joint action." This further specified the need for multiple mechanisms to facilitate implementation of the National Conservation Strategy.

The conclusions emanating from this exercise were the following:

1. The NCS implementing agency would need to involve numerous other governmental and non-governmental actors in implementing the NCS because there were NO sectoral subproblems that the agency could solve on its own as it is presently constituted;
2. Key stakeholders ranged from national to local levels -- a simple national-level focus did not appear promising for any of the issues and the NCS would need to forge strong linkages with local (district, subdistrict and village level) institutions to solve many of the sub-problems; and
3. Mechanisms to facilitate cooperation were needed -- the present use of "liaison officers" from various line ministries was useful for information sharing, but it was inadequate to deal with situations where resource sharing or joint action were required.

This provided the backdrop for the exercises conducted on Friday morning, July 15.

Those exercises consisted of small group work that was preliminary to generating output, the creation of the output by the groups, and then the presentation of the products to the plenary session. The preliminary work was to consider the implications of alternative placements for the NCS agency by using a decision tree format to identify the problems created by each placement strategy. Then, having done this, lists were generated of the advantages and disadvantages of each placement. This was the first output product.

The second product was in response to the perceived demand for some swift action on the part of the NCS agency. That was also a list, but in this case a list of actions that could be taken immediately, without resolving the placement issue, complemented by a list of those requiring the resolution of the placement question.

The two charts below are composites of the output generated by the three groups.

THE PLACEMENT QUESTION

PLACEMENT	ADVANTAGES	DISADVANTAGES
MLGLH (present location)	<ol style="list-style-type: none"> 1. closely linked to district coordination (target groups) 2. influence on urban & rural development 3. institutional connection to land boards 	<ol style="list-style-type: none"> 1. less control of other line ministries 2. overloaded 3. linked to ministry objectives
MFDP	<ol style="list-style-type: none"> 1. coordinative role 2. ability to ensure EIAs are done 3. access and influence with economic planners 4. powerful, influential ministry above sectoral perspective 	<ol style="list-style-type: none"> 1. overloaded 2. conflict of interests 3. financial orientation too narrow
OP	<ol style="list-style-type: none"> 1. political support & visibility 2. prestige 3. national outlook 4. policy direction 	<ol style="list-style-type: none"> 1. political identification and perception 2. not in touch with resource users 3. not closely linked to national development plan process 4. command and control situation 5. overburdened

<p>new ME (Ministry of the Environment)</p>	<p>1. focussed responsibility</p>	<p>1. difficult to establish and budget</p> <p>2. would require restructuring of agencies</p> <p>3. could become overly sectoralized</p>
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MLGLH = Ministry of Local Government, Lands and Housing

MFDP = Ministry of Finance and Development Planning

OP = Office of the President

EIA = Environmental Impact Assessments

THE TIMING OF ACTIONS

ACTIONS THAT CAN BE TAKEN IMMEDIATELY	ACTIONS REQUIRING PLACEMENT RESOLUTION
<ol style="list-style-type: none"> 1. human resources/skills plan development & training for NCS agency 2. identification of major cross-sectoral environmental issues 3. State-of-Environment Review 4. publicity/public awareness campaign 5. project development (modelling) 6. monitoring 7. design of reporting codes, legislative power, institutional structure, to facilitate integrated planning 	<ol style="list-style-type: none"> 1. review of sectoral agency or national policies in terms of compliance with NCS 2. "enforcement" of legislation 3. analysis of ministerial capability to accommodate the NCS

NESDA/USAID MISSION WORKSHOP PROGRAMME
14-15 July 1994

Thursday 14 July 1994

Session 1 Chairman: Professor R.M.K. Silitshena

0800 Registration

0830 Opening - Permanent Secretary, Local Government, Lands and Housing

0845 Overview of the Study Mission Objectives - G. Honadle/ Dorm-Adzobu

0915 The Botswana NCS: Background, Implementation, and Requisite Institutional Structures and Mechanisms for its Future - S.D. Liphuko

1000 Tea

1030 Experiences of National Strategy Plans in Africa - Dorm-Adzobu

1100 NGO Perspective on Institutional Structures and Mechanisms for Sustainable Development - J. Arntzen/ J. Gould

1130 Discussions

1200 Composition of Working Groups

1230 Lunch

Session 2 Facilitator: G. Honadle/ Dorm Adzobu

1400 Group Discussion

1500 Tea

1530 Presentation of the Group Discussions

1630 End of Day 1

Friday 15 July 1994

Session 3 Facilitator: G. Honadle/ Dorm Adzobu

0800 Introduction of Activities for Day 2

0830 Discussion

1000 Tea

1030 Presentation of Group Discussion

1130 Closing

1200 LUNCH

PARTICIPANTS

L. B. Mannatoko	rual dev/MFDP	Gaborone
S. N. Modukanele	DPSM	"
E. M. Naane	DA	Maun
S. M. Semele	Northwest Dist. Council"	
H. Karlsnes	NORAD	Gaborone
B. Mosetlhi	MWT & C	"
W. S. Ongadile	DA Tsabong	Tsabong
D. M. Lesolle	Met. services	Gaborone
K. K. Kentawile	NCS	"
C. J. Matala	Mines	"
A. K. Ramothwa	Met services	"
D. Wright	NWDC	Maun
A. Thomas	Open University	U. K.
I. Mdipisi	NCS	Gaborone
D. K. Dipholo	Ag Res Board	"
G. Lawtsang	NCS	"
E. Serati	DIRP/MLGL	"
M. P. Walker	FAB	"
M. Mmapatsi	RIP/RIIC	Kanye
G. Phorano	Thusitno Lefatsheng	Gaborone
R. Silitshena	U. of Botswana	"
R. Segodi	DTRP	"
M. L. Sebina	NCS	"
A. Kanega	NCS	"
S. D. Liphuko	NCS	"

APPENDIX B:

**A Botswana Case Study -- Why Communities Should Manage Their
Wildlife Resources**

by

Nicholas Winer

A BOTSWANA CASE STUDY

Why Communities should manage their wildlife resources.

More and more people express opinions and hold strong views about wildlife. In general, they are responding to the eruption of the media's interest in the fate of whales, pandas, elephants and rhinoceri or they are of the third world's rural poor daily contending with wildlife as they eke out a living, either despite the wildlife that surrounds them, or, from it. Often the opinions of these groups are in conflict with each other. A principal cause of this conflict is that while outsiders correctly identify declines in the populations of some species, they are all too quick to jump to simplified conclusions as to the causes. Rural people, particularly in Africa, have long lost any sort of communal control over the wildlife resources with which they have to contend in order to make a living. Without control, there can be no sense of ownership or responsibility for resources that have been so alienated from communal management as to provide few benefits and many costs.

"Anti-poaching laws have turned centuries-old practices of subsistence hunting into a crime, and transformed wildlife from a valuable commodity to a nuisance which threatens crops, livestock and the local people." And, given the way many people seem to be talking, one might reasonably add the entire institution of state control over game. This quotation from a recent book by Adams and McShane typifies the new thinking behind concerns to ensure that conservation is not too deeply imperilled by the clash between the forces of modern development and those defending traditional conservation needs.

Expanding human and livestock populations have encroached on more fragile lands, bringing with them boreholes, fences, roads and settlements. Increasing wealth from Botswana's enviably good record in managing its mineral resources has created a generation of recreational hunters able to travel in robust vehicles to shoot wild animals with increasingly sophisticated rifles. The rural poor, with few opportunities to own livestock, still look to the wildlife resource for sustenance. The need to satisfy such a range of competing demands is behind the increasingly complex landuse planning and policy framework in Botswana. Wildlife is a resource which has shown enormous resilience in the past, but is now under a greater threat than ever before. If it is to be maintained there must be a national understanding of why. At present there are many conflicting emotions generated by discussions about wildlife in Botswana, but no real consensus as to its role in a changing society.

To a livestock owner many species of game are dangerous predators while many others compete for water and grazing during the inevitable drought periods. For those struggling to produce a maize or a sorghum crop under this country's erratic rainfall regime there can be little more disheartening than to find your crop half eaten or trampled and the farming season to have progressed too far for replanting. The expanding urban middle class still gains great solace from maintaining contact with its rural roots through both the ownership of cattle and recreational hunting. They hope to see a viable balance maintained between wild and domestic stock. The rural poor, often too poor for sophisticated rifles and vehicles, find their limited access to game made harder through both over-hunting and the retreat of wildlife into the safety of more remote regions and

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national parks. They still need access to game, whilst hankering to own cattle in order to increase both their social status and economic security.

In many respects it seems, in the Botswana context, that wildlife represents a source of food for those in need in the rural areas, an important source of pleasure for those of a secure economic background, and a source of continuous friction for those who must struggle with the vagaries of nature as pastoral and arable farmers. One must then ask why the Government should place increasing emphasis on preserving its wildlife resource. It has clearly done this through the seventh National Development Plan, linking wildlife and tourism to the diversification of the rural economy, through the Tourism Policy and through the Wildlife Conservation Policy. If wildlife was just a step to be used in rising up the social and economic ladders of society there would not have been the need to expend the time and energy represented in these policy documents.

Wildlife suffers, I think, from two problems. Firstly, it is simply being taken for granted. It has always been there and it is presumed, by most, that it always will be there. Statistics, whilst not being either easy to interpret or always of much significance, do point to a long drawn out decline in numbers. Perhaps some decline has been inevitable and must be accepted in the face of Botswana's development, but there is a point of no return. Many are worried that we are getting close to it. Secondly, those that have traditionally been associated with the conservation of wildlife have very rarely been deemed to be acting in the interests of ordinary citizens. Wildlife officials appear to many members of the public only to have acted as policemen, patrolling and licensing traditional subsistence and recreational hunting activities. Safari companies have actively marketed an abundance of wildlife and an absence of people. Something that, of course, renders relationships at a local level difficult if people receive no benefit from being marketed out of the picture.

Apart from the wider, modern sentiment that too much wildlife and too many forests have been lost, that our water and air are being insidiously poisoned by the development process, we must also recognise that the range of traditional uses, briefly alluded to above, represent considerable economic potential. As any big business will tell you it is dangerous not to diversify. The full range of natural resources must be harnessed to maintain social and economic development in the rural areas. It is clear that cattle ownership is increasingly in the hands of the wealthy and cannot, should not, be seen as the economic salvation for all rural Botswana. This would be wishful thinking. Yet, it does remain the dominant view. It does need to be changed. Richard Mordi who studied people's attitudes to wildlife in 1990 says "Cattle ownership is highly skewed in favour of the wealthy. There is a cattle elite in Botswana. But that is neither the entire picture nor, even, the most compelling part of it. Our study demonstrates that *cattle mean more to those who do not presently own stocks than to those who do*".

The Government's handling of wildlife may not always have been popular with everyone. But, it has attempted to develop sustainable systems for managing protected areas as a national heritage, of tracking wildlife numbers and allocating licences to exploit harvestable surpluses. Who else should have done this? The point the Government has reached is, I believe, to say that it may no longer be necessary for it to shoulder this burden alone. Because the wildlife resource is such an intimate part of the rural heritage

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of Botswana, the responsibility for bearing the costs and benefits of it can, and should, be spread more widely, and more equitably. Wildlife, until early this century used to be managed by communities, although its cultural and economic significance began to be distorted by economic pressures exerted by white traders from South Africa from the middle of the last century onwards.

Looking back nearly 150 years, Kevin Shillington in 'The colonisation of the southern Tswana. 1870-1900' comments that "when James Chapman visited Mahura's town in 1853, he reported that 'many' had wagons and the wealthier people 'frequently' made long journeys to the interior to hunt elephants. But each year the valuable hunting grounds retreated further and further northwards so that by the late 1850s the Tlhaping wagon owners were to be found trekking as far as the Sashe river on the borders of Ndebele territory and were still unable to return with a profit". Many others did make huge profits in those days. In the 1860s there was one business house in Port Elizabeth and Hopetown that made a profit of over £2,000 on an outlay in guns and ammunition of £200. Ivory then was worth 5-6/- per lb. Ostrich was even more valuable, fetching £5-8 per lb and up to £40 per lb for the finest white feathers. It was no wonder that "the Rolong feared that O'Reilly and others like him who killed only for skins and feathers, leaving the carcasses for vultures, were in danger of creating a serious food shortage by wiping out the game of southern Bechuanaland".

Local responses to powerful economic and political trends, that were controlled from far away, seriously distorted the capacity of traditional management systems to adjust realistically to these new circumstances. Thus, it was not surprising that state control became a necessity as wildlife withered in the face of an escalating, and unregulated, demand for its produce. The same was equally true of the forest resources. By 1879, Shillington reports, "Kimberley was consuming fifty wagon loads of firewood a day", which, a few years later had so denuded the surrounding area that timber from southern Bechuanaland became competitively priced. And so it was that traditional economies clashed with the rapacious demands of an industrialising one. First gaining economically only to later lose control. Today the wheel has come full circle. Botswana's traditional economy is faced with the reality of living with the demands of its own rapidly developing one, and the challenge of harmonising and harnessing them for the widest economic and social good.

Giving people a greater role in the management of the wildlife resource, and effectively returning to people some of the control they have lost in the past, is now considered by many to be the only realistic option for both wildlife conservation and a broad based diversification of the rural economy. Such a programme has already begun, and is producing results which indicate that it does have much to offer. However, its progress is slow, in part because of a large number of worries that people have about change. The programme is centered on two beliefs. Firstly, that allowing communities to manage the annual quota of harvestable wildlife is the most direct, and the most equitable, way to start the process of de-centralisation. Secondly, that tourism should be considered as an area with a great potential for rural investment and employment. Tourism now generates around \$170 million per annum, and is growing at between 15%-20% a year. This should be favourably compared to agriculture which has been generating a little under \$200 million per annum, but whose contribution to the nation's GDP is falling.

Botswana operates under a system which provides for state ownership of wildlife, and in discharging the duties of holding wildlife on trust for the nation, gives all citizens an equal chance to hunt through a raffle system. This, while offering equality of access, does nothing to reflect the costs of maintaining the wildlife resource born by certain sections of society. Nor, does it offer opportunities for a shared management ethic leading to sustainable utilisation of the resource. Quotas represent the Department of Wildlife and National Parks (DWNP) estimates of biologically sustainable yields from local wildlife populations. The quotas are allocated to individual controlled hunting areas (CHAs), as the relevant administrative units within the landuse planning system. It is the communities within a particular CHA that now, under the Wildlife Conservation and National Parks Act 1992, have the opportunity to apply to the Department to manage their own quota.

To do this successfully a thorough process of consultation is necessary. Rather than discuss this in theory I would like to use the example of the first communities to have exercised this option. The five villages of the Chobe Enclave were given a community quota in 1993. This means that there was no distinction between citizen hunting or safari hunting established by the Department. It was up to the community to develop the management strategies for their wildlife that best suited their needs.

The Chobe Enclave Project is a community development project that aims to empower the communities there to make decisions regarding the management of their natural resources and the distribution of benefits arising out of that management. The communities were first asked, in 1989, at a series of Kgotlas (traditional public meetings), supported by the Kalahari Conservation Society and the Department of Wildlife and National Parks, whether they would wish to manage their own wildlife. Having answered positively, the USAID supported Natural Resources Management Project was asked to begin work there in 1991. The project's departmental staff and external advisors managed an intensive programme of Village Development Committee meetings, Kgotlas and seminars for a year and a half. This consultation process was run in liaison with the District Commissioner's office in Kasane and involved maintaining constant contact with local Councilors, Land Board and District Land Use Planning Unit officials.

Communities discussed the natural resources around them at a series of meetings and a host of project options from a tourist guest house, to fish farming and the management of their hunting quota were raised. Once having decided to manage development initiatives, they also had to put a great deal of effort into determining how to work together as a group of villages, how to elect representatives and how to ensure both accountability and a fair distribution of revenues. Community projects are complex and do need time to develop fully. The communities have begun modestly by taking on their wildlife quota. After two and a half years the communities of the Chobe Enclave have grasped the initiative. They now have five village based committees that have representatives on an interim board. The village committees are nearing the end of an intensive consultation process to produce a draft constitution for their community trust. The board, in consultation with its members, is already in the management business. They have, so far, made the following decisions:

To advertise and let a contract to a safari company to manage the wildlife quota for safari hunting.

- To conserve animals not shot by the safari company in the hope of obtaining a larger quota the next year.
- To hold only 10% of the revenues earned for the board and to distribute 90% to the participating communities.
- To discuss formalising their existence as a Trust by drawing up a constitution through selected village representatives.
- To have community members accompany all hunters, at their expense, in the Enclave to ensure that proper practise and procedures are adhered to.
- To seek to recruit an advisor to help develop the Trust's capacity to represent community interests in the management of local natural resources.
- To recruit, and have trained, a local person to act as their full time employee.
- To provide labour to support any building work that is carried out to help house the Trust and its advisor.

The Trust made almost \$12,000 in 1993 and is set to make at least \$32,000 in 1994. Additionally the Tribal Land Board will make about \$7,000 from the lease agreements that will be entered into and the District Council a similar amount from the licence fees. In deciding not to hunt all the animals on their quota in 1993 they showed a longer term perspective suggesting that economic gains are helping to produce a change in thinking that links conservation with development. Wildlife now has a value to the Chobe Enclave and not just a cost. The quota for the Enclave was made up of 168 animals. A safari company bought 33 animals of which 15 were shot. Citizens were also offered the chance to shoot on payment of a management fee to the Trust. 29 animals were shot in this way. The balance of 106 were consciously not hunted. The local marketing of hunting has led to major conservation decisions being made in the interests of increased incomes for the future. The project appears to be succeeding in demonstrating that improved incomes will depend on maintaining a viable wildlife resource.

The Chobe Enclave communities now have opportunities to develop their project beyond just managing their wildlife quota. Consideration is being given to managing tourist facilities related to the Chobe Park, as part of the new Management Plan, and to using minor forest products, under the Chobe Forests Management Plan. This development of strong links between conservation, the management of natural resources and economic values represents a clear new direction that offers the possibility of harmonising landuse systems in the interests of sustainable rural development.

The future for this project is economically bright and yet fraught with problems. As selected villagers became committee members the right to make decisions, and the power which goes with that, began to be vested in a small group of people. Technical issues of contract compliance by the safari company required increased attention and the minutiae of a proposed constitution had to be thrashed out. Increasingly ordinary villagers ceased to see the project as theirs. There were no new decisions for them to make and the revenues from the first year were still to be disbursed. By the end of 1993, the project had become elitist. Gone were the days when village meetings determined options. Although disappointing, this was an inevitable hurdle to be overcome in the early life of the project.

This loss of direct accountability and the diminution of dialogue between the committee members and their broader village constituencies has to be re-established. The abiding

principles upon which the community management of wildlife are built are representation and accountability. These principles must become paramount again if the project is to be sustainable as a community activity. As facilitators, the technicians funded by an external agency have no right to insist upon this in any way. Such a project will only succeed when it's considered by community members to be in their best interests.

Whilst the process of establishing the project was intensely consultative, its early implementation phases were marked by a tendency to elitism. Two processes will be used to, hopefully, re-instill in people the understanding that this is their project and that they have right to see it becoming accountable to them and their needs. The sociology office of the Department of Wildlife will be spending about three months towards the end of the hunting season in the Chobe Enclave. This continuous presence will be to conduct two different exercises.

Firstly a Participatory Rural Appraisal (PRA) will be conducted with each of the five main villages. This exercise, taking around three weeks in each village, will involve residents in detailed discussions about their land, their use of it and access to its resources; about their relationships as a community, with local government and the officials responsible for the Park that surrounds them. Through these debates an agenda for development, or community action plan, will emerge. This process, and its resulting plans, will provide a real challenge to the Trust to respond to the felt needs of the communities that it seeks to represent. Through the mechanism of PRA a new demand for accountability and a broader base of activities for the Trust should be stimulated.

After the PRA exercises are complete a socio-economic survey will be conducted. This survey will be as much about peoples' attitudes and perceptions as about what they have, or have not, gained from the project so far. An initial baseline survey was conducted in 1992 which demonstrated, amongst other things, the local interest in benefitting from wildlife, the need of the Department of Wildlife to be able to better respond to wild animals as problems in people's lives and to be able to demonstrate an attitude of cooperation, and not confrontation, with regard to villagers. These initial perceptions, gathered before any income accrued from wildlife, will be re-visited to determine the impact, if any, that the project has had on people's lives.

These are important tools for people engaging in supporting local development initiatives to use. If their use was limited to allowing outsiders to measure change along an externally delineated definition of progress they would merely represent intrusive and patronising extension tools. Provided that they are used in a sufficiently participatory manner they can become the tools by which people re-assert their control over the role and direction of their own institutions. A tension between the people and those they elect is probably necessary to ensure that there is an active debate about what the Trust is for and how best it can operate to provide the maximum, equitably distributed, benefits for its constituents.

Although the Chobe Enclave communities are the only ones to have received a community wildlife quota to date, this opportunity is available to all Districts in Botswana. It is hoped that more and more communities will seek ways to benefit themselves, and conservation, through developing structures for the management of their

local natural resources. This is an opportunity for Districts to promote enhanced economic development side by side with the sound management of the nation's renewable resources. Such a programme can really only succeed with the whole hearted support of District officials and the elected representatives of the people who have for too long shouldered the costs of living with wildlife.

Nicholas Winer,
April, 1994.

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APPENDIX C: PEOPLE CONTACTED

PEOPLE CONTACTED

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J. Hazam	NRM project/ Conservation International
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V. B. Sibiya	Mineral Resources and Water Affairs
R. M. Silitshena	University of Botswana
M. J. Hickey	NRM project/Chemonics
B. Mannathoko	Finance and Development Planning
H. Handler	Mission Director USAID
R. McColaugh	USAID
V. Ramtshabeng	MLGL/lands
M. Masisi	Education
M. Dyke	Attorney General's Office
Y. Mphathi	Attorney General's Office
K. Walker	Forestry Association of Botswana
S. D. Liphuko	NCS Agency
S. Monna	NCS Agency
M. Sebina	NCS Agency
A. Kanego	NCS Agency
K. Keatimilwe	NCS Agency

Kanye

G. Koketso	District Commissioner
M. Phiri	Land Board Secretary
M. Molelo	Regional land use officer
S. M. Sekwakwa	planning officer
K. Lewambano	Department of Labor
P. M. Letsholo	Tribal Secretary
M. Oabile	Land board Secretary

Ramotswa

E. G. Mbanga	DOD
G. M. Malatsi	Technical Officer (Lands)
S. M. Gedoge	Department Of Lands
L. T. S. Matlhabaphiri	District Commissioner
A. Kanego	NCS
D. Kabagambe	DPP
C. F. Adjei	SHI
L. M. Thela	Land Board Secretary
L. Jilampi	Chief Planning Officer
L. S. Madwala	District Agricultural Officer

Maun

K. Ross	Conservation International
E. Naane	Department of Agriculture
M. Moeibudi	Land Board
P. Sheller	private sector
C. Benn	private sector

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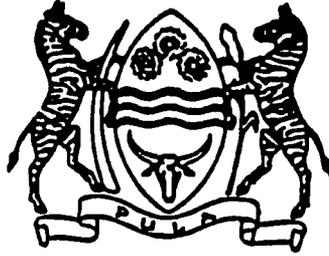
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NCS
NCS

APPENDIX D:

GOVERNMENT PAPER NO. 1 OF 1990



REPUBLIC OF BOTSWANA

**Botswana
National Conservation Strategy**

**NATIONAL
POLICY ON NATURAL RESOURCES
CONSERVATION AND DEVELOPMENT**

GOVERNMENT PAPER NO. 1 of 1990

**As approved by the National Assembly
On the 17th December 1990**

**Printed By The Government Printer
Gaborone**

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1. INTRODUCTION AND BACKGROUND

- 1.1 In 1983 the Government of Botswana accepted the need for the preparation of a National Conservation Strategy (NCS). This need emerged from close co-operation between the Government and UNEP in the preparation of the Clearing House Mission Report. That Report reflected the importance attached to identifying policies and other measures, which would ensure, whenever and wherever possible, the sustainability of all future development.
- 1.2 The Government attaches great importance to the wide range of natural resources and features which exist throughout Botswana and especially in protected areas: National Parks, Game Reserves, Forest Reserves and the designated Wildlife Management Areas. These resources include fresh air, clean waters, vegetation, livestock, wildlife, soils, human, cultural, visual, archaeological and other related features. It is upon these resources that many people depend directly for their livelihood. Some of the resources are appreciated internationally for their unique values: the Okavango Delta and the Central Kalahari Game Reserve, for example.
- 1.3 There is clear evidence that many of these resources are under pressure. In some cases, this has given rise to concern about the ability of the resources to sustain the needs of future generations. The impacts of these development pressures are manifest by:
 - a) the depletion of fuelwood resources, groundwater resources, wildlife species and indigenous veld products resources;
 - b) land erosion;
 - c) urban and rural pollution; as well as
 - d) rangeland degradation.
- 1.4 The Government has long been committed to 'sustainable development'. It is one of the four main planning objectives of the National Development Plan. Sustainable development entails ensuring that:
 - a) present generations consume no more than the annual output or yield of those natural resources which are renewable; and that thereby
 - b) future generations have access to capital stocks of natural resources, at least similar to those presently available.

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Achievement of sustainable development calls for comprehensive evaluation of environmental and economic implications before major new developments are undertaken. Consistent with this, the Natural Conservation Strategy is specifically geared:-

- a) at a minimum, to conserving the sustainability of the country's natural resources;
- b) at best, to improving the ways in which these resources are used, so that the environment is enhanced. This applies particularly wherever new developments, settlements and industries are involved.

The importance attached to 'sustainable development' in Botswana mirrors the experience in other countries where National Conservation Strategies have been prepared. The concept is supported by SADCC neighbours, as well as by many international donor agencies and conservation organizations; UNEP and the World Conservation Union, in particular.

- 1.5 Against this background the Government of Botswana has prepared a National Conservation Strategy, in full consultation with all levels of society in Botswana.

2. STRATEGY GOALS

- 2.1 The primary goals in formulating the Strategy are to pursue policies and measure which:-

- a) increase the effectiveness with which natural resources are used and managed, so that beneficial interactions are optimised and harmful environmental side-effects are minimized;
- b) integrate the work of the many sectoral Ministries and interest groups throughout Botswana, thereby improving the development of natural resources through conservation, visa versa.

- 2.2 A series of detailed Strategy goals has also been identified by Government. These specifically cover:-

Development goals, namely:

- i. the development of new and better natural resources uses, which are sustainable;
- ii. the optimization of the existing uses which are made of all natural resources;

- iii. the development of multiple, rather than single purpose, natural resource uses;
- iv. the diversification of the rural economy so as to generate new jobs;
- v. the increased education of, and participation by, all members of society in improving the environment;
- vi. the development of links with neighbouring countries in conserving resources;
- vii. the establishment of a balance between population growth and the supply of natural resources.

Conservation goals, namely:-

- i. the conservation of all main ecosystems, wildlife and cultural resources;
- ii. the protection of endangered species;
- iii. the maintenance of stocks of renewable resources (e.g. veld products), whilst increasing their sustainable yields;
- iv. the control of the depletion of exhaustible resources (e.g. minerals) at optimal rates;
- v. the distribution of incomes and rewards more equitably, in the interests of conserving natural resources;
- vi. the cost-effective restoration of degraded renewable natural resources, including improved capacity for regeneration of the veld;
- vii. the prevention and control of pollution.

- 2.3 Fulfillment of these detailed goals entails designing development so as to minimize environmental costs and to enhance the quality of the environment. It likewise requires that, when 'trade-offs' have to be made involving the use of natural resources, full account is taken of the environmental and social costs as well as the economic costs.

3. MAIN ENVIRONMENTAL ISSUES AND OPPORTUNITIES

3.1 Extensive public consultations have been carried out by Government in identifying the main environmental issues and opportunities, which need to be addressed in formulating and implementing the strategy.

3.2 The main environmental issues/problems requiring solutions are as follows:

Issue (A) Growing pressure on water resources, resulting from increases in population, urbanization and development;

Issue (B) Degradation of Rangeland Pasture Resources, due to a variety of management and other factors. Quantification is difficult. However, two facts are generally recognized, namely that:

- a significant proportion of the national range is undergoing degradation; and
- such degradation cannot be ascribed solely to drought;

Issue (C) Depletion of wood resources both in commercial harvest of forests and as the main source of domestic fuel in most settlements. Wood harvesting has been largely undertaken in an uncontrolled manner. Insufficient regard has been paid to ensuring that yields are sustainable;

Issue (D) Over-use or exploitation of some veld products (natural products of the desert: fruits, fungi, tubers, etc.). This has damaged their regenerative capacities to provide for both subsistence and commercial needs;

Issue (E) Pollution of air, water, soil and vegetation resources. As a result human life support systems in both urban (including industrial) and rural environments are affected.

The Government of Botswana recognizes the dependence of all sustainable development upon water resources. Accordingly the need to pay priority attention to these resources is accepted. At the same time, both the restoration and conservation of rangelands are regarded as matters of particular significance, in view of the importance of the livestock industry to the nation.

- 3.3 The Strategy also addresses other issues which have an important bearing upon the conservation of natural resources and thus the quality of the Botswana environment. These include resource pressures due to the growth in human population; the depletion and conservation of wildlife resources; and the need for improving public awareness about natural resource problems and opportunities.
- 3.4 The main sustainable development opportunities based on natural resources, which require support from the Government and all interested parties are:
- a) Opportunities in the Livestock Sector through the restoration of degraded rangelands and the adoption of improved management techniques leading to increased offtakes;
 - b) Opportunities in the Arable Sector related in particular to the irrigated production of food and cash crops, in the interests of maintaining strategic food supplies;
 - c) Opportunities in the Forestry Sector for increasing its contribution to the national economy through improved management methods;
 - d) Opportunities in the Fisheries Sector for significantly increasing the annual sustainable harvest from both the natural waters of the country and several man-made dams;
 - e) opportunities for establishing and developing a Wildlife Utilization Industry, consistent with the Government's Wildlife Conservation Policy;
 - f) Opportunities for sustained development of both existing and new Veld Products, based on the results of research;
 - g) Opportunities for expanding the Tourism Sector, consistent with the proposed Tourism Policy;
 - h) Opportunities for developing the Manufacturing and Related Industries Sector. This requires that due regard be paid to the need both for the removal of serious development constraints and for the establishment of new initiatives. These were identified at the National Conference on Strategies for Private Sector Development, held in 1988.
- 3.5 Major aims associated with the realization of these opportunities are the generation of more jobs and the

improvement of both per capita and household income levels. Under this strategy the importance of developing the linkages between the different natural resources is recognized. This applies particularly in the cases of water and human resources; livestock, wildlife, water and vegetation resources.

4. THE STRATEGY FRAMEWORK AND MEASURES

4.1 This White Paper outlines the Government's future strategy for the conservation of natural resources based upon the recommendations in the National Conservation Strategy Report. The Strategy provides an overall framework for the policies and measures, which will enable the key issues to be effectively addressed, as well as the opportunities to be realized.

4.2 The proposed framework involves the adoption of a blend of approaches. This is based upon continued, strong intervention by Government in the use and management of natural resources. The blend consists of three approaches:

first, a continuation of the existing interventionist approach under which a combination of laws, price incentives and fiscal reliefs in effect determine the dominant land uses;

secondly, the present system of resource allocation based on 'reasonable rationing' and zonation. This is manifest by the form of National Parks, Game and Forest Reserves, TGLP Ranches, Freehold and Leasehold Farms, mixed Farming Areas and designated Wildlife Management Areas (W.M.A.s);

thirdly, the multi-purpose (integrated) use and management of resources. In essence, this approach, wherever appropriate, calls for dual or multiple use to be made of resources. Combinations of enterprises are thereby sustained.

Just as in the past, a mixture of approaches has been adopted, so too a combination - albeit different in composition - is appropriate in formulating the Strategy. Whereas the first and second approaches have dominated in the past, it is felt that the third and second are likely to be particularly relevant in future.

4.3 In adopting this mixed approach, the importance of maintaining a strong livestock industry is recognized. At the same time, in view of the overgrazing problem, it is considered that there is a strong case for diversification. This entails developing market economies for resource uses

- additional to livestock and crop production.
- 4.4 Diversification, in effect, entails harnessing the many 'sustainable development' opportunities outlined in Section 3. It is well recognized, however, that these opportunities are by no means exclusive. Whilst they will undoubtedly help to relieve the pressure on the natural resources used by the Livestock Sector, expansion of the latter is not precluded. However, diversification is also sought through re-investment of Mineral Sector revenues; through developing a broader base of manufacturing and related industries; and through the establishment of a Financial Investment Services Sector.
 - 4.5 Another main feature of the Strategy framework is to provide added support for the implementation of existing Government policies (e.g. The Wildlife Conservation Policy, F.A.P., T.G.L.P., etc.) where these have major significance for the achievement of NCS goals.
 - 4.6 The Government also endorses the need for vigorous and carefully co-ordinated participation by all different groups within the community towards implementing the Strategy. These include village elders and members; District Councillors; Local Government, Central Government and Parastatal officials; members of the NGO Community; private sector companies; teachers and researchers, etc.
 - 4.7 At a more detailed level the Strategy framework consists of four different types of measures. The Government is committed to these in the interests of achieving the NCS goals, diversification in particular. These measures are:-
 - a) the provision of economic incentives and the use of disincentives. These are required respectively to stimulate sustainable development and to discourage over-utilization (exploitation) of natural resources;
 - b) the enforcement of existing laws/regulations and, where appropriate, the introduction of new legislation;
 - c) the improvement of planning and administrative procedures. This requires that full recognition is given to ecological needs, through the definition of resource use zones;
 - d) the expansion of facilities directed to improving environmental education, training and research activities, as well as to raising public awareness about environmental issues. It is envisaged that conservation education will be specifically included in school and teacher training college curricula.

4.8 In outline, six general types of incentives are envisaged, namely those which will:-

- i. promote good pasture management;
- ii. encourage rangeland restoration;
- iii. encourage diversification into new economic enterprises through an extension of FAP and other instruments;
- iv. provide annual awards to the winners of Environmental Improvement Competitions;
- v. encourage land tenure changes, especially in communal grazing which lead to improved management;
- vi. establish new forms of investment opportunities.

At the same time the Government intends to investigate in detail the design of appropriate disincentives for possible use in conserving the country's natural resources.

4.9 It is recognized that legislative reform can play an important role both in addressing most of the key issues and in supporting diversification. However, it is acknowledged that, in the short-term, there is a limit to the improvements which can be achieved through legislative measures. This applies to measures of all types: enforcement, reform and innovation. There is general recognition that:-

- a) too much reliance upon legislation should be avoided;
- b) high priority needs to be accorded to persuading and encouraging the public to act in ways which are environmentally benign.

Subject to these caveats, the Strategy calls for a series of improved enforcement measures and amendments to existing laws. These include improving the penal sanctions for 'law breakers', so that punishments fit the offenses, and encouraging the participation of local NGOs in enforcement activities. The laws and items for which amendments are proposed include the Forest Act, the National Parks Act, the Fauna Conservation Act, the Water Act, the Atmospheric Pollution (Prevention) Act, the dual grazing rights aspects of the Tribal Land Act, the strengthening of the Land Boards under the Agricultural Resources Act. Some of these

amendments are already in hand. In addition an Act, specifically in support of the NCS, is proposed. The objectives of this are outlined in Section 7.

- 4.10 The Government intends to use these four general measures in devising a series of 'solution packages' for addressing the issues and opportunities, summarized in Section 3.

5. STRATEGY FOR GOVERNMENT ACTION - INDIVIDUAL ISSUES

- 5.1 In devising the 'solution packages' for the key issues, prime consideration has been paid to:-

- a) the acceptability of the solutions to the main target groups;
- b) the proven technical and financial feasibility of the solutions;
- c) the availability of institutional capacities necessary for effective implementation;
- d) the need to establish incentives, which will make the results of diversification into new rural enterprises as financially attractive as those obtained from livestock and arable production.

Solution Package for the Pressure on Water Resources Issue

- 5.2 The solution package devised for dealing with this issue is necessarily wide-ranging. It includes improved planning and administrative measures in the interests of both protecting water resources against pollution and improving multi-purpose use. Gradual extension of the water tariff system into rural areas also features; likewise, the possible introduction of an incentive to encourage the collection of rain water. Most important is the role which the National Water Master Plan, currently under preparation, is expected to play as forming one of the essential cornerstones for implementation of the research measures, it is proposed that priority attention should focus upon: groundwater resources and their recharge rates; rainfall harvesting and water storage methods; recycling of treated effluent; pollution prevention; and inter-regional water transfers.

Solution Package for the Rangeland Pasture Degradation Issue

- 5.3 Of all the issues, this is recognized to be the one which is the hardest to resolve. Whilst many of the solutions have generally been known for considerable time, they run counter

to traditional customs. Thus implementation progress is likely to be slow. However, there is general support for a number of practical initiatives which include:-

- i. strengthening the Range Ecology Unit within MOA;
- ii. extending the zoning and gazetting of land for use of livestock and wildlife;
- iii. developing a comprehensive water supply policy for all forms of livestock and wildlife;
- iv. improving the provision of information to livestock farmers concerning carrying capacities;
- v. improving livestock marketing infrastructure to improve offtake.

Price incentives are proposed towards improving rangeland management, thereby helping to reduce overgrazing and restore degraded rangelands. The Government intends to pursue those, which, following further study, offer the best prospects.

- 5.4 Legal reforms will inevitably continue to present problems. However, the Government is committed to continuing to devise legislation which will lead to improvements in the management of both rangelands and livestock. In addition, continued attention will be paid to finding politically acceptable ways of improving the enforcement of the Tribal Land Act and Agricultural Resources Conservation Act. The provision of professional and technical advisers in support of the Land Boards is recognized to be a crucial step forward, along with the introduction of further educational, training and research programmes.

Solution Package for the Depletion of Wood Resources Issue

- 5.5 In recognition of both the potential importance and expansion of the Forestry Sector, the Government intends to up-date its Forestry Policy and, most importantly, to provide a comprehensive National Forestry Management Plan. The purpose of both exercises will be to improve the management of existing resources; to establish additional woodland areas; and to develop an economically viable Forestry Industry in Botswana. Great importance is attached to ensuring that each community will have good access to 'insitu' woodland resources. Consistent with these objectives and initiatives, the Government intends to commission a study investigating the roles which financial incentives and other forms of Government assistance should

fulfil in conserving and managing timber resources. This study will include the incentives required to assist the effective establishment and management of windbreaks, woodlots and amenity tree plantations. The need to encourage the use of wood substitutes is appreciated by Government, along with the possibility of introducing subsidies to assist poorer sectors of the community in making the substitution. Legislative reform of both the Forest and Agricultural Resources Conservation Acts is proposed, specifically to make the replanting and associated protection of trees a mandatory responsibility for all communities. Inevitably the solution package includes an array of education, training and research programmes, to which Government will procure and allocate the requisite funds. The Government is considering setting up a multi-sectoral Forest Advisory Committee to implement the improvements required in the Forestry Sector.

Solution Package for the Overuse of Veld Products Issue

- 5.6 As part of its programme encouraging economic diversification the Government intends to foster the sustained development of a veld products industry. Efforts will be made to concentrate commercial production in specific farm or plantation areas, specially licenced for the purpose by the Land Boards. The selective introduction of price incentives and capital grants will be investigated for the commercialization of new veld products. Strenuous efforts will continue to be made to ensure that under the Agricultural Resources Conservation Act, veld product communities are both restored and protected against exploitation. A major public educational campaign is proposed as an important component of the package, covering all aspects of veld products: values, availability, harvesting techniques, storage and processing, commercial cultivation projects, the use of substitutes, etc.

Solution Package for Industrial/Urban Pollution and the Enhancement of Settlements

- 5.7 The Government intends to introduce a package of measures for the conservation of those natural resources, which are in jeopardy through the development of industries and settlements. As part of the anti-pollution initiatives, both the establishment of waste processing factories and the introduction of incentives to encourage recycling are to be investigated. Measures are already being taken and will continue to be taken to enforce and tighten existing legislation. These measures apply to the Atmospheric Pollution (Prevention) Act, the Water Act and the Public Health Act. Amendments will cover all aspects of licensing, registration, reclamation, waste disposal, industrial

discharge, the import and export of chemicals, emission/waste standards, and the siting and use of dumps for the disposal of hazardous wastes. All amendments will be based on the 'polluter pays' principle! In addition, for safety reasons, consideration will be given to the possible introduction of legislation concerning the use, storage, labelling and marketing of all agricultural chemicals. Again, a series of public awareness campaigns will be undertaken by Government concerning all aspects of pollution prevention and control.

- 5,8 In the interests of enhancing all new development, industries and settlements in particular, the Government intends to encourage the enforcement of all aspects of the Town and Country Planning Act. Special attention will be paid to:-
- a) conserving natural resources within the planning areas of all settlements;
 - b) ensuring the improved provision, design and management of human settlements, including public open space and recreation facilities.

The Government appreciates the need to undertake these improvements in the interests of encouraging investment in diversified new enterprises on a joint venture basis.

Solution Package for the Conservation of Wildlife, Heritage and Cultural Resources

- 5.9 This package of measures has been devised in the interests of assisting both the wildlife utilization and tourism industries. The proposed planning, management and incentive measures include:-
- a) the gazettelement of the designated WMAs;
 - b) the upgrading of some game reserves so as to extend the protection given to all forms of wildlife;
 - c) the adjustment of some National Park boundaries to include a number of areas recommended in 1976 for gazettelement, on account of their botanical interest and to consider the Linyanti-Savuti triangle as part of the Chobe National Park of a WMA, as only some 10 km of river swamp frontage is presently protected in the Park;
 - d) the preparation and implementation of management plans;
 - e) the provision of increased anti-poaching controls; and

- f) the execution of wildlife cropping projects, primarily for the benefit of local communities.

Support is also provided for unification of the National Parks Act (Cap 38/03) and the Fauna Conservation Act (Cap 38.01) for the years 1967 and 1961 respectively. Accomplished in principle, this unification is now awaiting final approval.

6. THE EXPECTED BENEFITS

- 6.1 The 'solution packages' and initiatives proposed under the Strategy are expected to yield several benefits in both the short and longer term. Three main types of benefits are envisaged: conservation/protection of the environment; environmental development; and community gains.
- 6.2 The principal conservation and protection benefits include reductions in habitat losses; increases in the populations of both endangered and threatened wildlife species; the protection of all natural and cultural areas of outstanding value; and the restoration of degraded rangeland pastures and eroded areas. The changes will benefit the wildlife utilization, livestock and tourism industries, in particular. Improvements in the conservation and cost-effective use of water will benefit all sectors of the economy and community. The same applies in the case of the pollution prevention and control improvements.
- 6.3 Development, based on a policy of diversification, will help to enhance both the economic and physical environments. Not only will new enterprises, industries and investment opportunities be generated under the Strategy, but employment openings will grow.
- 6.4 Under the Strategy both rural and urban communities are expected to benefit; not just in economic and physical ways but socially also. Community participation - especially through Annual Environmental Award Schemes - is expected to grow.
- 6.5 Collectively these benefits are expected to be substantial. As a consequence, the Government is justified in making special provisions to implement the Strategy through new institutions and resource allocations.

7. PRE-REQUISITES FOR EFFECTIVE IMPLEMENTATION

- 7.1 It is generally agreed that successful implementation of the Strategy calls for close liaison. This involves all

Ministries and other interested parties: NGOs, the University, the private sector, etc. Thus, Government intends both to strengthen existing organizations and to provide new administrative structures. The latter include:-

- a) establishing an appropriate organizational authority, which will have prime responsibility for both co-ordinating implementation of the NCS and maintaining close links with the National Development Plan process;
- b) providing an extensive consultative framework within which such an authority can effectively operate. It will involve all levels of society in Botswana.

7.2 The three institutional measures which the Government proposes to take are to:-

- a) establish an NCS Advisory Board, under the chairmanship of the Minister of Local Government and Lands. The Board will report to Cabinet through the Minister. Membership of the Board shall include senior representatives of all relevant sectoral and other Ministries, as well as representatives of Local Authorities, the Chiefs, parastatals, NGOs, the private sector, the business community and special interest groups;
- b) establish an NCS Co-ordination Agency. The main functions of this will include servicing the Board, co-ordinating the execution of its decisions and liaising with other organizations to ensure that the NCS goals and objectives are achieved. The Agency shall initially be located in the Ministry of Local Government and Lands, until otherwise determined in consultation with the Directorate of Public Service Management;
- c) designate Environmental Liaison Officers (ELOs) within each of the Central and Local Government Ministries/Departments. They would be responsible for ensuring that their organizations comply with the NCS Act once passed, and for liaising closely with the NCS Co-ordination Agency. In the case of the relevant Central Government Ministries, the nomination of Environmental Liaison Officers may involve formalizing the representation of the organizations which attend the Inter-Ministerial Co-ordinating Environmental Sub-Group (ICES). It is envisaged that, at the District level, liaison officers will be designated. The importance of ensuring development of the necessary links and regular liaison between Ministries, Department and Local Authorities is well recognized.

The NCS Advisory Board shall have statutory advisory powers in so far as these are compatible with the responsibilities of Ministries.

- 7.3 The Government intends to submit to the National Assembly a Bill, which will cover the measures proposed under the NCS. This enabling legislation will be referred to as "The NCS Act". It will include the following:-
- a) the requirement that all sectoral Ministries, Departments, Local Authorities, parastatals, etc., shall, in the course of their work, show due regard for the conservation and enhancement of the environment in the interests of achieving sustainable development;
 - b) the need for the sectoral Ministries of Government, in particular, to work closely with the NCS Co-ordination Agency in discharging their environmental responsibilities;
 - c) the necessity for new development projects (public and private) to be accompanied by professionally prepared and approved Environmental Impact Assessments (EIAs);
 - d) the obligation for the NCS Agency to prepare annual/biennial State of the Environment Reviews;
 - e) the provision of necessary powers, whereby Planning and other Authorities can be required to prepare conservation and resource strategies at District/Local levels and to review them regularly;
 - f) the encouragement which Government intends to give to NGOs in sharing responsibility for both conservation and enhancement of the nation's environment.
- 7.4 The NCS Advisory Board is intended to play an important role in the operation of the NCS Act. In cases of doubt concerning the discharge of environmental obligations by organizations and individuals under the Act, the Board will provide guidance on how the obligations may best be met. The Board will similarly advise organizations where it believes that the environment is being compromised through either policies or activities which merit review. In addition, the Board will be responsible for presenting an annual/biennial State of the Environment Report and for co-ordinating reviews of environmental legislation.
- 7.5 It is envisaged that both the NCS Advisory Board and Co-ordination Agency will play major roles in helping to implement the EIA provision under "The NCS Act". The

purpose of the assessments will be to enable competent authorities to reach decisions on public and private development projects with the benefit of a full understanding of the environmental, as well as the economic and social, costs which will be incurred in both the short and longer-term.

- 7.6 There is general agreement that effective implementation of the Strategy will involve a range of additional tasks, including planning and co-ordinating policies, analyzing and executing research priorities, establishing educational and training programmes, overseeing promotional and information campaigns, etc.
- 7.7 One of the principal functions of the Agency will be to advise and support the existing line Ministries/Departments and Local Authorities in discharging their various environmental responsibilities. This will include co-ordinating and helping with, as appropriate, the work entailed in undertaking found main types of environmental projects, namely those:-
- i. undertaken at Village and District level, with NGO involvement;
 - ii. undertaken by other Ministries, Government Departments and parastatals, at national level;
 - iii. initiated and managed by the Agency itself, with inputs from other Ministries and organizations as appropriate;
 - iv. undertaken either jointly with or through NGOs.
- 7.8 In the undertaking of all the functions, the roles of both the NCS Advisory Board and the Co-ordination Agency will be to complement rather than duplicate the activities of existing organizations.
- 7.9 It is acknowledged that successful implementation of many of the Strategy proposals and projects will call for the continued support and involvement of NGOs. Most importantly, the implementation provisions outside of Government will involve the private sector: in particular, the leading commercial companies and developers, the hoteliers and safari companies, the banking, engineering and property development professions, etc. Such participation will be encouraged by Government.

7.10 It is recognized that implementation of the NCS involving all sectors of the community, will require the allocation and deployment of additional resources. Government accepts responsibility for providing the necessary lead by contributing resources to:-

- a) the formulation and execution of all policies directed to the sustainable development and conservation of all natural resources: water, rangelands, woodland and timber, veld products and wildlife in particular;
- b) the establishment of the proposed new institutions;
- c) the provision of 'solution packages' for environment problems and development opportunities;
- d) the formulation and execution of projects at national, district and village levels;
- e) the conduct of research and development programmes;
- f) the provision of conservation orientated extension services;
- g) the introduction of additional education and training facilities;
- h) the formulation and implementation of EIA procedures;
- i) the organization of promotional and information campaigns required in support of the NCS;
- j) the advancement of environmental data systems;
- k) the preparation of management plans for all National Parks, Game/Forest Reserves, WMAs and other important conservation areas and features;
- l) the ratification, where appropriate, of International Natural Resource Conservation Conventions;
- m) the provision of support and appropriate assistance to conservation NGOs and private sector organizations in the execution of their responsibilities.

7.11 Government accepts that implementation of the Strategy calls for the provision of significant additional resources, covering four specific requirements:-

- First, there are resources required for both the establishment and operation of both the NCS Advisory

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Board and NCS Co-ordinating Agency. The role of the Co-ordinating Agency will be to co-ordinate a range of natural resource planning and managerial issues, EIA work and the co-ordination of environmental improvement measures.

In recognition of the fact that the potential agenda for change under the NCS is large, the Government endorses the appointment of highly experienced personnel to the NCS Advisory Board and to the NCS Co-ordinating Agency.

- Secondly, there are the additional funds required to cover the adjustments within existing Government organizations, in order that they can play their full part in the implementation of the NCS.
- Thirdly, there will be the need for resources to undertake the special training, R&D, data collection, monitoring and promotional programmes outlined earlier.
- Fourthly, a programme for the implementation of projects phased over a five year period, will need to be funded. In total 42 priority project proposals have been recommended by the respective Ministries, in the course of preparing their NCS Technical Reports.

It is recognized that, in implementing the Strategy, Government resources will need to be complemented by contributions from the private sector and the donors.

7.12 It is intended to implement the Strategy through an Action Plan, which will be monitored as part of the NDP process.

7.13 The Government is committed to ensuring the success of the Strategy and specifically the achievement of its twin goals: sustainable development through and with the conservation of natural resources.