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**FINAL REPORT
ASSESSMENT OF COMMUNITY-BASED NATURAL RESOURCE
MANAGEMENT (CBNRM) IN SOUTHERN AFRICA**

Submitted to: Dr. Albert Merkel

**TECHNICAL OFFICE
AGENCY FOR INTERNATIONAL DEVELOPMENT
REGIONAL CENTER FOR SOUTHERN AFRICA
USAID/RCSA, BOTSWANA**

Prepared by:

AGRICULTURAL DEVELOPMENT CONSULTANTS, INC.

AUTHORS:

**Gary Naughton
Art Hansen
Clyde Kiker
Brian Jones**

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ACRONYMS

ADMADE: Administrative Management Design Program (Zambia)
AG/NRM: Agriculture and Natural Resources Management
CAMPFIRE: Communal Areas Management Program for Indigenous Resources
CBNRM: Community Based Natural Resources Management
CBO: Community-based Organization
CITES: Convention on International Trade in Endangered Species of Wild Flora and Fauna
CRB: Community Resources Board
DFID: Department for International Development (U.K.)
DNPWLM: Department of National Parks and Wildlife Management (Zimbabwe)
DNPW: Department of National Parks and Wildlife (Malawi)
DNPWS: Department of National Parks and Wildlife Service (Zambia)
DWNP: Department of Wildlife and National Parks (Botswana)
GDP: gross domestic product
GMA: Game Management Area
GTZ: German Development Organization
IUCN: The World Conservation Union
LIFE: Living in a Finite Environment
LIRDP: Luangwa Integrated Resource Development Project (Zambia)
NGO: Non-Governmental Organization
NORAD: Norwegian Development Agency
NRM: Natural Resource Management
NRMP: Natural Resources Management Project
PACT: Private Agencies Collaborating Together
PCC: Project Coordinating Committee
PVO: Private Voluntary Organization
RCSA:M Regional Center for Southern Africa (USAID)
RDC: Rural District Council
SADC: Southern African Development Community
SARP: Southern African Regional Program
SNV: Netherlands Development Organization
SO: Strategic Objective (USAID)
SOW: Scope of Work
TCU: Technical Coordinating Unit (SADC Wildlife Sector)
USAID: United States Agency for International Development
VAG: Village Area Group
WMSA: Wildlife Management Sub-Authority
WWF: World Wide Fund for Nature
ZWA: Zambia Wildlife Authority

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Assessment of Community-Based Natural Resources Management (CBNRM) In Southern Africa

EXECUTIVE SUMMARY

The process of community-based natural resources management (CBNRM) is a key component activity within the RCSA's Natural Resources Management Project (NRMP) which was initiated in Southern Africa in 1989. It is achieving very good results in organizing communities to work together to solve the problems of management of the natural resources on their common lands and in helping them establish the linkages necessary for access to technical assistance, markets and information and communication networks.

This assessment summarizes the status of the CBNRM process within the NRMP, identifies the key elements and factors necessary for rural communities to become actively involved in helping themselves to improve their quality of life, and examines the opportunities and constraints the communities must deal with in the process of improving the productivity, profitability, and sustainability of their natural resources base.

People living on undivided (common) lands with limited tenure or proprietorship rights are nonetheless dependent upon those lands and their productive capacity for their continued livelihood. We refer to them as *dependent users*; even as tenure is clarified and the proportionate sharing of common-land rights with the state are adjudicated or specified, the dependency of these people will continue. The extent to which they survive and prosper in their environment varies with the degree to which the people have authority to make decisions as to how these lands and their resources will be used and developed.

CBNRM processes and activities are working world-wide as an integral part of USAID's development portfolio. What we find in the Southern African context is essentially the same set of operational opportunities and constraints found everywhere:

** authority over the common lands and their resources is generally held by the state with varying degrees of restriction of the usufruct and/or tenurial rights of the dependent users on the land;*

** governments are willing (sometimes grudgingly) to share some of the rights, authority, and beneficial uses of these lands in order to obtain the cooperation and involvement of local people in the protection, management, and sustainable use of the resources;*

** governments have varying degrees of commitment to the long-term development of the economic strength and self-determination of rural communities;*

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** communities, rural or urban, are not isolated islands of self-sufficiency; they need linkages to the larger networks of society, commerce, and government in order to develop rationally and sustainably; and*

** market forces play a critical role in the identification of the resource values necessary to provide the driving forces required to develop the willingness, motivation and capacity of governments and rural people to invest their scarce human and financial resources into the CBNRM process.*

These are complex relationships which raise issues of equitable sharing of benefits and costs, inter-dependence of the local people with the technical and governmental entities, the manner in which proprietorship is to be held or shared, and the forces which motivate people and governments to trust each other and work together for their mutual long-term benefits.

The CBNRM process in the NRMP started with, and still rests heavily upon, the utilization and conservation of the big game resources and the closely related wildlife tourism sector in the several countries. It has succeeded because the combination of forces related to high visibility of the resource, market opportunity and need for action motivated governments and dependent users to work together. The success of this focus on wildlife has overshadowed many other natural resources management opportunities which are just now beginning to develop. But, the mechanisms for community action and entrepreneurship are in place and sustainable, and the expansion to other resource development opportunities is more a matter of introducing additional technology, extension education and market development linkages into the existing system.

RCSA's current NRMP has a PACD (project activity completion date) of September, 1999. Since 1994, the NRMP has supported CBNRM activities in Botswana, Namibia, Zambia and Zimbabwe, plus a regional coordinating unit in Malawi in furtherance of the natural resources component of **RCSA's Strategic Objective No. 3: "accelerated regional adoption of sustainable agriculture and natural resource management approaches"** toward achievement of the following:

Result 1. Demonstrate through practical examples, the technical, social, economic and ecological viability and replicability of CBNRM and utilization programs on marginal lands for increasing household and community incomes while sustaining natural resources; and

Result 2. Improve national and local capability to halt the decline in the wildlife, range, watershed, veld products, and biodiversity of the resource base through training, education, protection, communication and technology transfer.

I. SUMMARY OF FINDINGS AND RECOMMENDATIONS

A. Findings

A.1. The CBNRM process, through the NRMP, has made significant contribution toward achieving the intended results of RCSA's Strategic Objective Three (SO3).

A.2. USAID's initial pilot-program focus of CBNRM on the wildlife resources was correct; this sector was already tied to an existing market, was threatened by over-exploitation, and was of major concern across the region and around the world. Governments, NGOs and local people and communities remain motivated and active, enabling the CBNRM approach to continue to gain momentum and expand into new communities.

A.3. The evolution and development of new policy and legislation in the NRMP countries has been a slow process over the past ten years, but changes have begun to flow through the process rapidly since 1996. This is reflective of considerable effort and attention by governments to the long-term ramifications of such changes, as well as the willingness of governments to make necessary changes. The evidence strongly suggests that the policy-makers are observant of the approaches being taken by their neighboring countries and take them into consideration when seeking solutions to their internal needs. Namibia, for example, started late but was able to move rapidly in this arena by examining and weighing the impacts of the policies and laws of other states in the region.

A.4. The regional coordinating unit in Malawi has very successfully demonstrated that a focused effort of extension information and communication activities, supported by a regional newsletter and well organized regional workshops and seminars, can have significant impact on raising and maintaining awareness and creating motivation to act. This unit's initial focus on the wildlife sector is now influencing other productive natural resource sectors such as forestry, fisheries, and veld products.

A.5. CBNRM is an evolving and viable process for the long-term rational management and use of natural resources on marginal lands; it is successful where the local participants perceive that their total social and financial benefits exceed their individual total input costs. All of the elements necessary for sustainability are in place in the NRMP component activities in Botswana, Namibia, Zambia and Zimbabwe. This does not mean that all of the communities are individually capable of sustaining their CBNRM processes, but they are not required to function alone within the CBNRM systems which are in place.

A.6. Wildlife focused CBNRM is effectively reaching the traditionally disadvantaged rural poor because their marginal communal lands (in terms of agriculture) are becoming profitable lands in terms of wildlife production systems; CBNRM is making meaningful contribution to many local economies where the people have been previously dependent upon subsistence farming and remittances.

With this functioning base, CBNRM programs in the several countries are capable of

broadening their activities to address other natural resources products and services as market linkages are established.

A.7. There is evidence of increase in some wildlife populations and increasing trends of a few species, and the improvement of habitat in specific locations; however, there is insufficient evidence to conclude any cause and effect relationships of CBNRM activities to broad biophysical trends within and beyond management areas.

A.8. The distinct socio-political structures of individual nations show that CBNRM is widely *adaptable*, if not *replicable*; ideas, experiences and results are shared across the region and each country is continuing to test nuances in the process which lead to shifts in the character of CBNRM activities to fill the opportunities and meet the needs of the local people.

A.9. Implementing organizations (government agencies, CBOs, and NGOs) still lack the absorptive capacity to efficiently, effectively, and rapidly use donor support; the magnitude of donor funding and the short (4-5 year) implementing cycles are not well synchronized to internal conditions and constraints.

A.10. Incomplete and non-structured economic and financial data about incomes, costs, numbers of jobs, and market supply and demand dynamics for products and services make it impossible to produce a meaningful economic assessment of the CBNRM program. Indicators in many of the documents show that the CBNRM process is, however, providing a broadened range of financial and economic alternatives for rural people and specific examples look promising for the future.

B. Recommendations

B.1. Any expansion of CBNRM efforts should be geared toward linkage of existing market demands to an expanded range of products and/or services, in addition to those of the wildlife sector, that can be supplied by the communities and individuals from the natural resources base. This will identify new market opportunities which will provide the impetus for increased economic strength and broadened management activities.

B.2. RCSA's follow-on NRM activities should support the maintenance and conservation of biodiversity by assisting the development and use of coordinated monitoring of biological indicators. The productive condition of the natural resources on a landscape reflects directly on the potential sustainability of those resources and the livelihoods of people dependent upon them.

B.3. The NRMP needs to introduce systematic and structured collection of economic data into the monitoring and evaluation activities of the project management portfolio; output and input data need to be quantified in monetary terms for computation of net gains (or losses) and ultimate comparison to project costs/returns.

B.4. Adapt the model of the regional coordinating unit for the SADC Wildlife TCU to other SADC TCU's which address the non-wildlife sectors of the natural resources, i.e., forestry, fisheries and range. This might be coordinated in a number of different ways, but could lead to a consortium of interests that would transcend the sectoral specificity of the natural resources and aim at the functional needs of communities dependent upon that mix of resources.

II. METHODOLOGY

This assessment was carried out by a four person consultancy contract team which operated out of the RCSA in Gaborone, Botswana, during a six-week period from May-July, 1998, under the sponsorship of the SO-3 team.

The greatest portion of the information for this assessment came from a desk study of a large volume of recent USAID and partner CBNRM project evaluation reports, regional scientific research papers, special case-study reports, and preview information relating to up-coming project efforts by donor countries and international NGOs (see Annex A). This was augmented by personal interviews with key donors, NGOs, and government officials at the CBNRM project sponsorship level in Botswana, Malawi, Namibia, Zambia and Zimbabwe (see Annex B). Time constraints did not allow for visits to any field operations nor to other countries in the region.

After completion of the initial summary of all the information attainable within this tightly defined period, a roundtable discussion was held at RCSA on June 22nd to present the assessment team's tentative findings and to elicit open discussion of ideas and issues requiring clarification. This half-day workshop was chaired by IUCN, and featured nine leaders of CBNRM activities from around the region as respondents to the team's presentation on the nine major points of focus from the scope of work for the assessment. This was followed by an open forum discussion to get comments and questions from the 24 observers at the session (see Annex B). Key elements of this roundtable discussion were incorporated into this assessment document.

Analyses of data and information were facilitated by use of comparative methodology, in which the results being reflected in the programs of each individual country were compared to those in the other countries by numerous processes of normative ranking. This was extremely helpful in understanding the sometimes subtle variations between countries when attempting to find cause and effect relationships for assessing impacts of CBNRM. This approach is valid in the context of the countries studied because of their contiguous geographical position, their recent political emergence as independent nations, their similarity in terms of broadly abundant and diverse wildlife resources, and their international attractiveness to the safari/tourism market. It could be argued that this common wildlife resource basis for CBNRM initiation limits the validity of the conclusions in this assessment to those cases based upon similar wildlife-based programs.

The assessment presented below will show that this is not the case; the success of the CBNRM process is more dependent upon enabling policies, conditions and motivation regardless of the key products of the natural resource base.

In conducting the assessment the following *working definitions* were used for continuity and clarity of analysis:

***Community:** a self-identified group of families and individuals with shared interests, needs, wants and desires working together for their common good. A community need not be a homogenous group and may often include competing interest groups or individuals that do not necessarily share the same vision except when they come together in their common interests.*

***Management:** the process of planning, organizing and implementing activities which lead to the rational and systematic production of desired goods and services.*

***Sustainability:** the capability of a system or thing to reproduce and nurture itself into the future.*

***Community-based natural resource management (CBNRM):** the process of community involvement in natural resources management for profit and sustainable productivity.*

***Policy:** the manner in which legal or recognized authority is exercised or applied to the subject of that authority. Law is not policy, per se, but only the arbitrated or adjudicated intent of the imposing authority; policy is pragmatic; it is the result of how legal authority actually works in the social context.*

III. THE ASSESSMENT

A. Overview

I. BACKGROUND

Southern Africa is one of the world's most biologically diverse regions. Approximately 13 percent of the region, excluding South Africa, is made up of freshwater ecosystems. The diversity of plant species found in South Africa, Lesotho and Swaziland is eight times the world average, four times that of the United States, and double that of Brazil, when measured as the average number of plant species per 1,000 kilometers. Roughly three-quarters of the region supports tree cover. Despite the large and extensive protected areas network of the region, several ecologically important areas remain under-protected, including the mountain forests and lowland rain forests. Of special note is the fact that only about 5.5% of the land in Southern Africa is arable. This fact alone requires both sustainable management of natural resources and maximization of income from these areas to the people that live in them.

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The objective of this assessment was to determine the status of USAID's Community Based Natural Resource Management (CBNRM) program activities in the Southern Africa region. This is neither an evaluation nor a program design; the information provided here is a short summary of the regional situation since original pilot effort funding for CBNRM commenced in 1989.

USAID, through the RCSA and bilateral missions, funds programs supporting CBNRM in Southern Africa. The RCSA Natural Resources Management Project (NRMP) started in 1989 and supports component activities for Botswana, Namibia, Zambia, and Zimbabwe, plus a regional coordinating unit in Malawi.

Through a cooperative agreement with RCSA, a consortium headed by the IUCN (World Conservation Union) supports the Southern Africa Development Community's (SADC) Wildlife Sector technical coordinating unit (TCU) based in Malawi.

This coordinating unit provides regional services: 1.) to strengthen the capacity of the SADC Wildlife Sector; and 2.) to improve regional coordination, communication, understanding and technical knowledge of CBNRM throughout the region. It organizes and facilitates the regional CBNRM biennial conferences, exposure visits for peer groups, workshops, publishes a newsletter, and publicizes lessons learned. It has also focused on regional level monitoring and evaluation. The unit is operated by the regional office of IUCN in cooperation with WWF/Zimbabwe and the African Resources Trust (ART)/Zimbabwe.

RCSA's current CBNRM support project, NRMP, is near completion of its second phase which ends in 1999. During this period, CBNRM activities have been carried out in furtherance of the natural resources component of RCSA's (revised 1994) SO-3: ***"accelerated regional adoption of sustainable agriculture/natural resources management approaches"***.

The stated purposes of this assessment were to:

1.a. Inform USAID, particularly the Africa Bureau and RCSA, of the potential for future involvement by the RCSA in CBNRM. The contribution CBNRM has made and the potential for future conservation of important natural resources and economic growth among rural populations must be assessed. The assessment shall take a broad look at CBNRM programs in the region funded by USAID as well as other sources. All USAID Southern Africa-funded projects, ADMADE, LIFE, CAMPFIRE and the Botswana NRMP component have all been evaluated within the past 18 months. The Team shall utilize these evaluations to assess the status of each of the country programs results for sustainability and which elements may continue to be supported. The assessment shall provide guidance on the way forward for the RCSA's involvement in CBNRM beyond 1999.

1.b. Provide information that will assist USAID in quantifying the impacts and sustainability of CBNRM in Southern Africa.

The effect of CBNRM activities on the Quality of Life in participating communities and better conservation of the resources are important considerations for future design of activities. Additional results (both positive and negative) that are not clearly presented in USAID Southern Africa-funded activity reports but are considered important by the Assessment Team to be important shall be described and quantified as well. Other players' activities (donors, NGOs and governments) shall be described as well.

1.c. To a lesser extent, assist the RCSA, AFR/SD, and the regional partners in identifying design issues and important considerations that need to be addressed in a design of a regional follow-on project of CBNRM. This is a minor part of the assessment and should receive attention as information and conclusions become evident to the Team.

2. *DEFINING CBNRM:*

Analyzing what elements are essential to successful implementation and sustainability of CBNRM programs led to the need to define CBNRM.

The SOW for this assessment states that there is no universally accepted definition for CBNRM, then offers the following as a description:

"when communities intimately involved with the natural resources become involved with the management of natural resources and profit from the better use of the resource, then sustainable productivity is enhanced".

Re-drafting for clarity we used the following as a working definition for this assessment:

"The process of community involvement in natural resources management for profit and sustainable productivity".

The concepts of profit and sustainable productivity are important here; profit as the key motivator of the local participants (community) to take action; sustainable productivity as a secondary motivator at the local level, and as a primary legitimizer for government support and involvement. In neither case does the definition of CBNRM imply, require, nor deny the modifiers of proprietorship, democratic structure, technical capability, nor community self-sufficiency. These are left to the discretion of implementors and change-agents as fits the situations they confront. By inclusion of the word involvement, this definition allows for the concepts of participatory, co-operative, collaborative, and independent management approaches. Other possible definitions were considered. If CBNRM is defined as:

"natural resources management by communities",
this would imply that the community has adequate resource control, technical capability, responsibility for inputs, and control of outputs necessary to do all of the management functions necessary for self-sufficiency.

If CBNRM is defined as:

“management of community-based natural resources”,
there would be no focus as to whether the communities participate in the management, nor in the sharing of benefits and costs; the options could vary from total government authority to total community authority with infinite variations of co-management and participation in between.

3. **PRINCIPLES AND FEATURES OF CBNRM:**

Regional experts state the basic hypothesis underlying the concept of CBNRM in Southern Africa as:

“For a community to manage its resource base sustainably, the community must receive direct benefits arising from the use of the resource(s); these benefits must exceed the perceived costs of managing the resource(s) and must be secure over time.”

This broad hypothesis is not limited to Southern African application and is, essentially, the basic conceptual hypothesis for CBNRM-type programs world-wide. Replacing the word community with the word individual describes the conceptual hypothesis that supports private management of natural resources.

Direct benefits are the key to motivation of people to participate over the extended periods of time necessary to implement productive natural resources management programs. Although indirect and induced economic benefits will usually accrue also, these usually lack the kind of visible *cause and effect* identity needed for long-term motivation, especially in community-focused programs. See the discussion under SOW Topic 6, Economic Dimensions.

Analysis of CBNRM differentiates between optimal principles, which express the desired conditions for communities to manage their communal property and natural resources sustainably, and optimal features, which express adaptation to the real-world constraints and opportunities that shape a workable CBNRM framework.

3.a. Optimal Principles: Five optimal principles for CBNRM (paraphrased from Murphree 1993) are widely cited:

- * Effective management of natural resources is best achieved by giving the resource a focused value, in order to determine whether the benefits of management exceed the costs;
- * Differential inputs must result in differential benefits, communities managing the resource bear higher costs and should receive higher benefits than those who do not bear these costs;

- * There must be a positive correlation between the quality of management and the magnitude of derived benefits;
- * The decision-making unit of proprietorship should be the same as the unit of production, management, and benefit; and
- * The unit of proprietorship should be as small as practicable, within ecological and socio-political constraints.

4. ATTRIBUTES FOR SUSTAINABILITY

From these principles, a list of the optimal features of a fully developed CBNRM program is derived here to address the attributes reasonably necessary to attain sustainability:

4.1. Appropriate *enabling policies and laws* are in place:

4.1.a. Devolution of management authority over natural resources to the local level;

4.1.b. Local resource rights adequate to control access, use, sale, and contract for use or sale;

4.1.c. Decentralization of state civil authority and technical services to the district level or below;

4.1.d. Broad-based political support for CBNRM as a management strategy throughout government and not just in a few sectoral agencies;

4.1.e. Laws and policies encourage local authorities, communities and individuals to manage resources sustainably; and

4.1.f. Government has the oversight authority and capacity to monitor resource use to ensure that use is ecologically sustainable.

4.2. Appropriate *community level organizations* and capabilities are in place:

4.2.a. Communities have established organizations (i.e., CBOs) for decision-making and interaction with government and other institutions;

4.2.b. CBOs have representative and accountable leadership with the authority to make decisions and resolve local conflicts;

4.2.c. CBOs have functioning linkages with local levels of government, traditional authorities, other communities and the market sector;

4.2.d. CBOs have local access to the technical expertise and timely information required to actively participate in management of their resources and operate successful resource-based enterprises; and

4.2.e. People involved at all levels are motivated to make CBNRM work.

These optimal features for sustainability are less than ideal in many respects and are currently subject to debate. Some regional actors in the CBNRM movement are particularly intent upon using CBNRM as a means of land tenure reform, some see it as a means of establishing local democratic authority, some believe it is a way to return to local traditional authority, some expect it to make communities independent of government authority while others see it as a means of establishing local government, and still others see CBNRM primarily as a method of economic development. But, the optimal features listed above are deliberately less rigid and exclusive than any of these idealistic views in an attempt to describe CBNRM in a broader range of circumstances and conditions to address the opportunities of local situations and needs of resource management.

For example, if full community proprietorship of land and resources is required for sustainability, the opportunities for new CBNRM initiatives are significantly narrowed in scope and scale, and none of the existing CBNRM projects in the NRMP would meet the test. The appointed community resource boards (CRBs) in the ADMADE program in Zambia would not pass the test of democratic representation.

None of the established CBOs in wildlife oriented CBNRM units could meet the criteria of independence from government since the game harvest quotas are still controlled by government regardless of who is declared to be the 'owner' of the wildlife resources.

5. ANALYSIS:

The detailed assessment presented below is structured according to the nine specific topics presented in the scope of work (SOW). They are re-stated at the start of each section for quick reference. Special effort has been made to avoid redundancy in the topic by topic presentation by referring to more detailed coverage under other topic sections. Topic 10, Women and Disadvantaged Groups, was added by the team to address a general requirement of the SOW. Annex D is the complete SOW document.

B. Related Topics

1. SOW TOPIC : STATE-OF-THE-ART OF CBNRM.

Document the state-of-the-art of CBNRM as it is practiced throughout the region in USAID NRMP activities as well as activities of other donors or national structures. Certain conditions are necessary for CBNRM to take effect and be sustainable. Important enabling conditions include networking, information/technology sharing, and policy frameworks in place.

The analysis shall determine what policies and other important conditions have helped CBNRM move toward sustainability and which have been constraints for the programs to operate in each country.

Some things that are considered to be important enabling enhancements are: appropriate policies; capacity building, both local and national; tenure rights; technical skills; inventories of the natural resource base; communications; and PVO competence.

1.a. Discussion:

a.1. Institutional and Legal Framework.

The government of Botswana has developed a community-based rural development strategy and a statutory Community Conservation Fund supported through national appropriations. In the wildlife sector, rural communities that form a Community Trust can gain access in areas designated for community use to wildlife and tourism concessions through leases from the local Land Board. While the establishment of a trust potentially provides for a strong collective decision-making body, the resource rights obtained are through a commercial process in which the community is favored by policy directives. These rights are less strong than proprietorship of the resource. Veld resources remain open access and policy needs to address proprietorship of these resources if communities are to gain adequate control to encourage management. The Forestry Division in the Ministry of Agriculture is developing a new forest policy which will provide for greater community involvement, possibly also through community trusts.

District and local level government institutions have well-defined roles in supporting the trusts in acquiring their lease rights, and are not in competition for the income.

Communities are realizing substantial income from trophy hunting, tourism, and the harvesting and sale of marula fruit and mopane worms, although household share of this income is relatively small. In most cases communities are not yet re-investing income in management of the wildlife resource and most organizational costs are still being borne by government or donors.

The organizational and technical capacities of most of the seven existing trusts are still being developed and they are nearly ready to operate without external support. Systems are being developed to involve communities in wildlife monitoring and veld resource projects having conservation components. Generally, communities have not yet moved from exploitation of benefits to resource management. Project personnel believe this will develop as income flows continue and people realize they have long-term tenure over leases. It is not clear how much of the remaining need for assistance is related to confidence-building and how much is due to an actual lack of capability within the trusts. Seven additional communities have made application for trust status.

The institutional framework of support organizations in Botswana is based on a national program bringing together a number of partners with coordination coming from the Department of Wildlife and National Parks (DWNP) and the USAID-funded Natural Resource Management Program (NRMP-II), which is housed within DWNP.

The DWNP provides information and extension support to communities along with assistance in problem animal control, and liaison with other government departments on policy and legislation. DWNP is still building its capacity to fully carry out these roles.

International NGOs such as Private Agencies Collaborating Together (PACT) and Netherlands Development Organization (SNV), and local NGOs such as Thusano Lefatsheng provide institution and capacity building support to communities. The private sector provides the marketing and other expertise to run tourism and safari hunting enterprises, but community experience with the private sector has been mixed. The art of negotiating is still developing as the parties gradually acquire trust and confidence in each other, and begin to understand the capabilities and limitations of the other.

Malawi has insignificant populations of wildlife (with the exception of fish), even in protected areas, and is the most densely settled country in the region. Land has been dedicated to agriculture on a large scale. Draft wildlife policy aims to increase cooperation between protected areas and neighbors on communal land through revenue sharing and controlled access to some resources within protected areas. The wildlife authority has already instituted revenue sharing with local communities and promoted the establishment of natural resource management committees which manage the use of resources by community members within the national parks.

The fisheries sector in Malawi has gone the furthest in developing CBNRM approaches. In 1993 (with GTZ), fishermen got together to address a decline in fish yield and began to develop and enforce their own fishing rules. As a result of the success, other fishing groups have taken similar initiatives. The government now recognizes these groups in law and plans to conclude agreements with them over the management of the resource. The powers of the fishing groups in terms of law enforcement are not yet defined.

Recent policy (1996) and law (1997) changes in the Malawi forestry sector provide for community management of forests on customary lands, through the establishment of village forest committees. These committees may develop a forest management plan and then conclude Village Forest Agreements with government. No such agreements are yet in place, and progress is expected to be slow. The law gives strong and exclusive resource tenure to communities through the village forest committees and the government says it will help defend the rights of a particular community against outsiders.

Recent (1996) policy and legislation in Namibia gives strong resource rights over wildlife and tourism directly to local communities that form a common property resource management institution called a “conservancy”.

Policy allows the communities to define themselves, and registered conservancies can receive income directly through contracts or sales to the market sector, rather than through government. New land policy (1998) provides for conservancies to hold land leases from local land boards (yet to be established). Proposed forestry and water legislation will devolve rights to community bodies similar to conservancies, providing the potential for integrated resource management.

Relationships between the emerging conservancies and intermediate layers of civil authority such as regional (district) government are not well defined. Four conservancies have been approved by government and are functioning as CBOs with constitutions, elected committees and an agreed plan for the equitable distribution of income. Another 11 are in various stages of formation. They all still need assistance in developing organizational and technical capacity. The Ministry of Environment and Tourism is assisting communities to develop a data base for wildlife management and a monitoring system. Some conservancies are beginning to integrate wildlife and tourism with other land uses and are developing their own land use plans.

The conservancies have just begun negotiating contracts with tourism and hunting operators, and economic projections suggest that resource-rich communities can pay their own way. Namibia has a well-developed national program approach to implementation. Government is changing enabling policies and legislation to strengthen community resource rights, and is providing information and extension. NGOs provide institution and capacity building support to communities, but the number involved is small and limits program expansion.

The government of Zambia has a revenue sharing approach to community-based wildlife utilization called the Administrative Management Design (ADMAD) Program. It has established a wildlife revenue revolving fund through which 40% of revenue from trophy hunting is channeled to local communities in game management areas (GMA)s. Funds are currently allocated to a Wildlife Management Sub-authority (WMSA) comprised of government officials and community leaders, and then spent on community projects and the employment of village scouts to deal with poaching. While income meets administrative costs in wildlife rich GMAs, it does not in others. The organizational and technical capacity of the WMSAs are weak, except for the nine previously supported by USAID.

The Zambian institutional framework is less complex than in neighboring countries. The government enters into contracts with safari hunting operators or sells licenses to individual hunters, and shares a portion of the revenue with local communities. DNPWS provides the support and training to the WMSAs and to the village scouts, but there is insufficient capacity to fully support all GMAs. The Netherlands is working with IUCN to develop a CBNRM program in Zambia's Western Province, promoting the establishment of village natural resource management committees and including resources such as forests.

Another CBNRM project under the auspices of the DNPWS is the Luangwa Integrated Rural Development Project (LIRDP), funded by NORAD. It is focused on the South Luangwa National Park and the adjacent Lupande GMA.

It began as an integrated rural development project, but has recently confined itself to renewable natural resource management with a primary focus on wildlife. The project aims to improve the wildlife resources in the target area, maintain biodiversity, and create a favorable environment for the safari industry so that income can be generated for the benefit of local communities and management of the resources. Wildlife within LIRDPA has been increasing, largely due to the strengthening of law enforcement inputs backed up by greater tolerance for wildlife from the local community.

A new Wildlife Act (1998) in Zambia proposes to convert DNPWS to a new par-statal Zambia Wildlife Authority (ZWA) and provides for the establishment of Community Resources Boards (CRBs) which would cover the area of a chiefdom in any area of the country. A CRB would include community representatives, a representative of the local district authority and a representative of the chief. In recognition of the strong status of chiefs in Zambia, the chief would be the *patron* (not defined) of the CRB. The CRB would negotiate “co-management agreements” with safari operators, manage the wildlife under its jurisdiction, appoint village scouts and, in consultation with the ZWA, develop land use management plans. In some areas ADMARE is also promoting the establishment of more local level institutions called Village Area Groups (VAGs) which would interact with WMSAs or CRBs to improve community involvement.

Zimbabwe has devolved proprietorship (appropriate authority) over wildlife to its Rural District Councils (RDCs), which are administrative arms of government. The rights are strong and legally entrenched, but they are generally perceived to be located too far above the community level. In the few cases where RDCs have devolved some authority to lower administrative levels such as Wards, local control over the resources and the benefits creates much stronger incentives. In these cases, communities are actively managing their wildlife resources as an integral part of their other land uses. Accountability and transparency appear to be higher than in larger communities. Most RDCs and Wards do not yet have the capacity to operate their wildlife activities without external assistance. The CAMPFIRE (Communal Areas Management Program for Indigenous Resources) approach of distributing income from wildlife at household level clearly establishes the link between the resource and the benefit and facilitates accountability. Households in the more advanced CBOs use their income strategically, keeping it primarily for household needs in time of drought and using a higher proportion for community projects when times are better. Although household share of income is not high in cash terms, it is important.

Zimbabwe has a well-developed institutional framework for supporting CBNRM activities, which is coordinated through a collaborative group made up of government and implementing NGO representatives. The collaborative group is chaired by the CAMPFIRE Association, a body representing 36 Rural District Councils that have received appropriate authority.

a.2. Enabling and constraining laws, policies and conditions

Although Botswana's policies generally favor CBNRM, the resource rights of communities are still not strong and direct. Other government policies and actions threaten to undermine CBNRM activities. These include the Ministry of Agriculture's network of veterinary fencing in support of beef producers, and the opening up of new grazing lands in the arid west and north west. Reforms giving stronger land and resource rights to trusts would provide CBNRM activities with a much firmer foundation. The current government difficulty in posting and retaining field personnel is a constraint to its efforts to assist the communities.

The policy environment for CBNRM in Malawi has improved considerably in the past two years and there is potential, particularly within the fisheries and forestry sectors, for CBNRM to spread. However, there is the danger of establishing a plethora of committees at village and district level focusing narrowly on only one resource. A further concern is that, while the policy environment appears good, implementation will be slow because of a lack of government capacity to assist communities. There is no strong NGO sector to assist in these activities.

Namibia's policy and legislation goes further than any other in the region in giving rights over resources to local communities, and in providing for community-level common property resource management. However, the establishment of conservancies has been a protracted process, partly because in having to define themselves, communities need to negotiate their boundaries with neighbors. This has led to land disputes for which conflict resolution mechanisms are just beginning to evolve. The lack of a defined relationship with emerging regional and local government structures could lead to competition for the rights and revenues which conservancies currently enjoy.

The CRBs and VAGs represent a significant recent shift within ADMADE in Zambia toward a more representative approach to community involvement. However, the income from hunting and tourism concessions will still first be paid into the ZWA and only then will a percentage be passed on to the CRB. Furthermore, the 1998 Act does not define the "management" function over wildlife ascribed to CRBs. It gives land owners the "absolute right" to harvest wild animals resident on their land subject to provisions of the Act, but it is not clear whether this applies to communal land. It is also not clear how the new institutions for resource management will relate to various district level authorities. A major difference between LIRD and ADMADE is that within LIRD, all the income generated goes directly to the community. If plans proceed to integrate LIRD with ADMADE this could change and undermine LIRD. Another concern is that the new parastatal, ZWA, will be in even greater competition with local communities for the revenues being generated by wildlife.

The resource rights given to RDCs in Zimbabwe are strong, but need to be devolved to lower levels of community organization. This would assist in dealing with the constraints on progress in some areas caused by uncontrolled in-migration of people from outside. Recommendations for such reform have been made by a government Commission but not yet implemented.

A new policy statement (1998) by the Minister of Mines, Environment and Tourism says government will consider further devolution of Appropriate Authority below the RDCs to the wards and villages, and will consider how communities can gain authority over other resources. This represents an important shift in policy as the recent tendency had been toward re-centralization of authority.

a.3. Movement toward sustainability.

The preceding discussion details many of the subtle variations in the programs of the several NRMP countries.

Comparing the list of optimal features for CBNRM sustainability, from the discussion in the Overview, and the hypothetical framework developed under Topic 7 of this assessment, some additional insight into the prediction of sustainability is provided in the following table.

It also points out the need for the consideration of a different set of criteria which can properly qualify the range in degrees of differences in these standards as to how they affect sustainability.

For example, because these optimal features which are used as the gauge in this case place high importance upon local authority over the resources, it is skewed against the more bureaucratic CBNRM model of ADMADE in Zambia. We do not believe that this means the Zambian model is less sustainable than the others; it does mean that sustainability is being achieved under a different set of criteria. Some similar nuances of differences can be drawn from every one of the CBNRM programs analyzed; the variations are sometimes subtle and sometimes bold, but lead to the same conclusion that, as a process of development, CBNRM must be molded and operated within the real-world constraints of the socio-political structure which supports it. Table No. 1 presents the Progress Toward Sustainability Operational Feature.

1.b. Findings:

Policies affecting CBNRM are in a process of rapid evolution and change, indicating a high degree of motivation and activity generally favorable to the CBNRM process. But some particular shifts could have negative affects, as governments seek short-term revenue producing solutions that could have long-term negative impacts on CBNRM activities.

The institutional frameworks from center to local level are in place, despite some weakness in linkages and operational capacity; and the CBNRM process in Botswana, Namibia, Zambia and Zimbabwe will be at sustainable levels within the respective PACDs of the NRMP.

Table No. 1: CBNRM Progress Toward Sustainability by Operational Feature. (Using the analytical framework from Topic 7 and the list of features from the Overview of this Assessment).

	<u>DEVELOPMENT STAGES</u>		
	<u>Initiating</u>	<u>Implementing</u>	<u>Sustaining</u>
A. LAWS AND POLICIES IN PLACE			
1. local management authority		Za	Bo,Na,Zi
2. local resource control	Za	Zi	Bo,Na
3. decentralized civil authority		Na,Za	Bo,Zi
4. government support of CBNRM		Na,Za,Zi	Bo
5. sustained mgt. policy		Na,Za	Bo,Zi
6. gov't capacity to monitor		Bo,Za,Zi	Na
B. COMMUNITY ORGANIZATIONS			
1. CBOs established & functioning		Na,Za	Bo,Zi
2. CBOs representative & accountable	Za		Bo,Na,Zi
3. CBO linkages:			
to civil authority		Na	Bo,Za,Zi
to traditional authority		Bo,Na,Zi	Za
to market sector	Za	Na	Bo,Zi
4. local access to tech support for:			
resource management		Bo,Na	Za,Zi
enterprise operations		Na,Za,Zi	Bo
5. local people are motivated			Bo,Na,Za,Zi

1.c. Recommendations:

Donors and sponsors need to maintain their involvement with the CBNRM policy formulation processes continuously during the initiating and implementing stages of project development, with particular attention to proprietorship rights, benefit-sharing issues, and environmental quality assurance.

Integration of resource management activities within one community institution or within nested and related institutions should be promoted.

2. SOW TOPIC: MODES OF IMPLEMENTATION.

Each country or activity has had a different mode of implementation. These shall be documented, particularly in terms of the length of time in operation and level of intensity of technical assistance and progress toward sustainability of the two results in paragraph two of the Background section of this SOW. Most of this information is included in the recently completed project evaluations.

The team will suggest methods that could be used to document measures of progress in CBNRM over time for use in future CBNRM activities.

2.a. Discussion:

The NRMP supports activities that should achieve the following:

Result 1: demonstrate, through practical examples, the technical, social, economic and ecological viability of CBNRM and utilization programs on marginal lands for increasing household and community incomes while sustaining natural resources; and

Result 2: improve national and local capability to halt the decline in the wildlife, range, watershed, veld products, and biodiversity of the resource base through training, education, protection, communication and technology transfer.

Zimbabwe was the first of the five countries in RCSA's current NRMP program to explore the concept of what is known today as CBNRM.

After an earlier attempt in the late 1970s was side-tracked during the revolutionary period, the CAMPFIRE program finally started in 1984. Organized by the Department of National Parks and Wildlife Management (DNPWM) to control poaching of game animals and recover their dwindling numbers, it went directly to the people in the field who were closest to the problem. In 1988, Zambia introduced the ADMADE program. Both of these programs were internally conceived and initiated by their respective governments.

When USAID activated the NRMP in 1989, both Zimbabwe and Zambia requested bi-lateral support through their respective USAID Missions, and they, along with Botswana, were the first clients. Shortly thereafter, Namibia gained independence (1991) and subsequently developed its internally driven LIFE program which closely paralleled the philosophy of NRMP. In 1992, USAID began funding project support to LIFE as a pass-through in coordination with USAID/Windhoek.

USAID funded technical assistance and project support varies according to the particular program scale and scope which has been worked out by agreement with the various host countries. Implementation in Botswana is through a U.S. contractor and NGO grantee (PACT) working through counter-parts from the DWNP; in Namibia, it is through WWF/US with counter-parts in the Ministry of Environment and Tourism; in Zambia it is through the New York Zoological Society; and in Zimbabwe it is through a U.S. contractor with counterparts in CAMPFIRE. In all of these cases, additional support is provided by NGOs, the most prominent being WWF and IUCN. Some local adaptation of extension methodology is being used in every case to facilitate community organization and to introduce new concepts and technologies. Motivating people to get involved in the process of change has been found to be a key initiating strategy, as well as a commonly recurring theme throughout each stage of the CBNRM process.

NRMP support to Malawi has been to assist the government in fulfilling its role as the SADC technical coordinating unit (TCU) for “Regional Development of Community Based Management and Utilization of Wildlife Resources in Marginal Areas”. In 1996, USAID/Malawi instituted its NATURE program to incorporate the CBNRM model into its operations. This has led to the preparation of a bi-lateral CBNRM project which is to be initiated sometime in late 1998. The USAID level of effort to the NRMP since August 1989 is shown in Table No. 2

Table No. 2. USAID Funding for Regional Natural Resource Management Project. (Funding expressed in millions of US dollars)

	Botswana NRMP	Namibia LIFE	Zambia ADMADE	Zimbabwe CAMPFIRE	SADC TCU and RCSA
Initial Project Date	Aug 1989	Aug 1993	Aug 1989	Aug 1989	Aug 1989
Current PACD	Aug 1999	Aug 1999	Dec 1999	Aug 1999	Aug 1999
USAID/RCSA Funding	23.4	15.0	4.8	12.1	4.3 total (3.1 TCU and 1.2 RCSA)

The several governments have their own theories of operation and different authority structures as befits their own internal situations. Because today's CBNRM program is the outgrowth of separate indigenous initiatives, the mode of implementation within each government is unique. Details about the policy process, discussed in Topic No. 1 (above), provide additional insight into these differences. In general, Botswana and Namibia have developed along the idea of CBOs as officially registered and chartered organizations, allowing them to operate as enterprises with the capacity to contract directly with the market sector in carrying out management operations on their communal lands. In Zambia and Zimbabwe, the general model is one which imposes a pre-determined structure (CRBs and RDCs) on the landscape. This can be generally characterized as a revenue model, in that government is the contracting agent, collects the incomes generated, then re-distributes a percentage to the communities at the district or sub-district level.

Malawi is still in the development stages of its operational philosophy, but is tending toward adapting the basic model used in Zambia and Zimbabwe for the wildlife and parks areas, and the Namibian model for forests and fisheries.

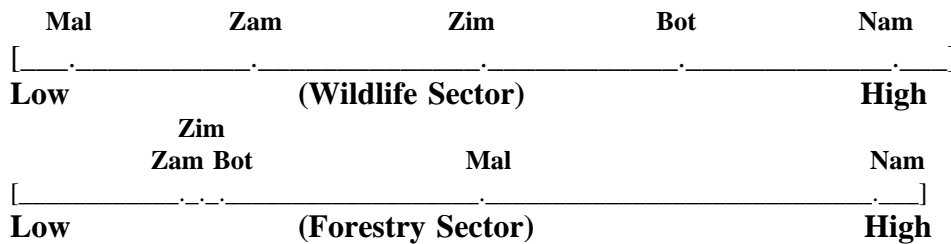
The overall result of these differences in policy and organizational structure affects the actual capacity of the local people to have access to the use of the resources and to have inputs into the decision making process. These two facets of the results of policy are the real effects of the degree of devolution of resource rights to local levels from central government, as shown in the schematics (below) for the wildlife and forestry sectors of production.

These sectors are not coordinated by the same agencies in their respective governments.

The effect of these different modes of operation is reflected in the results being obtained by the various programs.

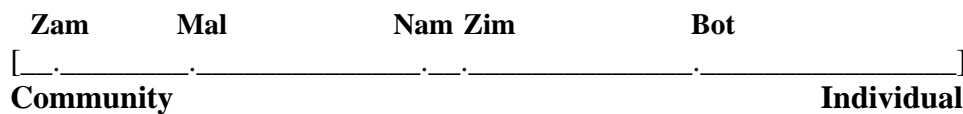
Both the revenue model and the enterprise model have had nearly the same positive effect on utilization and income generation, as evidenced by the data discussed in Topic 6, Economic Dimensions, and the decreased rate of conversion of land to agricultural production in some areas since the program's participatory approach began to take effect in the past five years. However, the marginality of tillage agriculture is financially dynamic *vis-a-vis* constant changes in the availability and cost of labor, capital and technology when weighed against subsistence demands and commodity market prices. In the long run, increasing human populations will continue to press for the dedication of more of what is now considered marginal land to agriculture.

2.a.1. Comparative Degrees of Devolution



In Zambia, income generated by the program is disbursed only to the community, while Namibia and Zimbabwe CBOs vote on the percentage split between community and household. In Botswana the income goes more directly to the producer of the effort -- to individuals, or households, or the CBO if it holds the contract which generated the funds. The case for increasing individual household incomes is less clear for Namibia and Zimbabwe, because they may vote all of the income to households during drought years, as a survival mechanism, then turn around in some years and vote most of it to community infrastructure investments. The best opportunity for individual households to gain is found in Botswana, where the people are encouraged to seek individual opportunities to generate income in addition to whatever the CBO takes on as a group. In arriving at this current comparison of the benefit streams, the total of individual household and community were considered together. The differential in the local benefit stream between countries is shown as a continuum (below):

2.a.2. Comparative Local Benefit Stream



Assessing the degree of progress toward sustainability for each country in terms of Result

1 (increasing incomes) is facilitated by reference to the hypothetical analytical framework presented in Topic 7 of this report.

The framework sets up three stages of CBNRM development; the initiating stage, the implementing stage, and the sustaining stage. Subjective analysis leads to the conclusion that: Zimbabwe reached the early level of the **Sustaining Stage** within the last 3 years; Botswana is entering the **Sustaining Stage** at present; Namibia and Zambia are near the end of the **Implementing Stage** at present; and Malawi is in the early **Initiating Stage**.

With respect to Result 2 (conservation), both modes of implementation have reportedly had positive impacts on wildlife populations on communal lands. Part of this impact is directly attributed to participatory control of poaching, and the evidence suggests that the local people are assigning higher value to wildlife as a result of their sharing in the financial benefits from the safari industry. Assessing the degree of progress toward sustainability for each country in terms of Result 2 is, once again, facilitated by reference to the hypothetical analytical framework; it is also limited by the fact that only the wildlife sector of conservation attainment is measured here from the data available. Subjective analysis leads to the conclusion that: Zambia and Zimbabwe are presently in the early **Sustaining Stage**; Botswana and Namibia are near the center of the **Implementing Stage**; and Malawi is in the early **Implementing Stage**.

The most salient single factor in arriving at these ratings is the capability of the national and local organizations. In general, capability at national levels has increased significantly in the past two years, while local capability has expanded more slowly (except in Zimbabwe).

The level of development toward sustainability, as estimated here, correlates closely with the availability and capacity of NGOs, and with the length of time the programs have been deployed in the field.

Overall, the modes of implementation within countries and the comparable differences between them are becoming more dynamic and less distinct. The common, over-riding theme of involving the local user communities to help reduce the impacts of poaching is still a part of the approach in the initial stage; but focus rapidly shifts beyond that, toward utilization and management. As these shifts occur, the differentiation of modes, between the “revenue” group and the “enterprise” group is becoming less distinct. Sharing ideas between the countries is also a significant part of this evolution as they learn from each other. This is viewed as an early indicator of the increasing degree of sophistication of the CBNRM process (an indicator of sustainability) as the long-term effects of joint participation begin to emerge.

2.b. Findings:

CBNRM implementation is in a stage of acceleration and early sustainability within the NRMP after having undergone nearly ten years of initiating efforts and overcoming the inertia against change; implementing organizations (agencies, CBOs, NGOs, etc.) still lack the absorptive capacity to efficiently, effectively, and rapidly use donor support.

The magnitude of donor funding and the short (4-5 year) implementing cycles are not well synchronized to the internal conditions and constraints of the recipients.

2.c. *Recommendations:*

If unobligated project funds remain at PACD, consider extending NRMP support with these funds through a trust mechanism of some type which would allow for grants to highly qualified NGOs to maintain the momentum of activities related to specific needs identified at the time of final project evaluations.

3. *SOW TOPIC: POTENTIAL SUSTAINABILITY OF CBNRM.*

Characterize CBNRM in terms of its spread and potential sustainability based on such variables as climate, land type/cover, land tenure, social structures, and policy frameworks and economic impact. This information is available in various reports on NRMP projects as well as in the project evaluations. The available information can be augmented during interviews with the CBNRM practitioners met during visits to the region by the Team. The analysis shall catalogue, to the extent possible, CBNRM approaches by key characteristics using as a guide those different approaches described in the draft concept paper, done in September 1997, for a new design and the pre-conference paper for Beyond the Tragedy of the Commons Conference held in Kasane in 1995 as points of departure. These papers are available in the RCSA Office.

3.a. *Discussion:*

The spread and potential sustainability of CBNRM in the region are dependent upon different advocacy groups that are concerned about two primary and three secondary points of focused interest.

One primary focus is economic development which concentrates on improving the incomes of rural disadvantaged people on communal lands, and is reinforced by the development arena's emphasis on community and popular participation. The second primary focus is wildlife conservation, which initially enlisted popular support for anti-poaching activities. Local participation was gained by sharing the financial benefits from wildlife with the rural communities.

The three secondary points of support for CBNRM are: 1.) the democracy and governance movement, concentrating on decentralizing government and devolving authority, rights, and

responsibility to the people; 2.) the market economy, diminishing the importance of central planning and increasing the importance of responding to market demands and opportunities; and, 3.) human rights concerns, demonstrated by the interest in fair treatment and equality, and the emphasis on working with disadvantaged people on communal lands.

Zimbabwe (1980) and Namibia (1991) only recently became independent majority-rule countries, and in both countries the politically sensitive "land issue" is a legacy of their colonial past. The colonial pattern of evicting indigenous people from their best lands and converting them to freehold tenure for Europeans, shows today in the differential rights between these freeholds and communal lands. Colonial authorities in many countries in the region also evicted people from lands that were converted into national parks or controlled hunting areas. Now, the issue of devolving rights to lands and other natural resources in communal areas is enmeshed in this larger and more contentious land issue. Perhaps the specific nature of the CBNRM-related issue of tenure rights to communal lands and resources will allow it to be resolved gradually. The fragmented natural resources agencies, by sector, and the current practice of addressing community rights issues sector by sector, could result in piecemeal solutions to this issue.

Current CBNRM projects began by concentrating on targets of opportunity on communal lands. These were locations unfavorable for agriculture, or not completely converted to agricultural use, and had significant wildlife populations under threat. There was a corresponding low density of human population. These early locations featured pre-existing market opportunities for wildlife and there were existing benefit streams from contracts and licenses that were diverted to benefit the community without the need for large amounts of start-up capital investment. The early locations also featured existing organizations (NGOs or CBOs) or social or political willingness to participate in the program. These factors facilitated recruiting the communities.

In Botswana and Namibia, CBNRM activities are concentrated in the north, where the semi-arid climate and generally sandy soils create conditions that are marginal at best for crop production. Low density populations of agriculturalists, agro-pastoralists, and hunters and gatherers co-exist on communal lands with economically significant wildlife populations. The area contains some significant rivers and wetlands, including the famed Okavango Delta. The "land issue" influences CBNRM in Namibia, while in Botswana, a politically and economically powerful livestock sector influences CBNRM areas by a continual pressure to permit access by more cattle to communal grazing lands and designated WMAs, and by construction of veterinary fences that restrict migratory wildlife.

In Zimbabwe, the CAMPFIRE program covers a broad horseshoe-shaped expanse of marginal land surrounding the central plateau. These are the marginal lands where black Africans remained or were resettled, and are low in elevation, receive less rainfall, and are less favorable for crop production. Portions of the marginal lands are also reserved as protected areas.

CBNRM activities are not developed evenly across these lands, but are concentrated in the drier areas along the Zambezi River in the north and in the southeastern lowlands where

agriculture is marginal and manageable populations of wildlife are present.

In Zambia, the ADMADE program covers all of the country's Game Management Areas (GMAs) which were established next to national parks to create buffer zones.

About 30% of Zambia is in parks and GMAs, and although many GMA lands are suitable in climate and soil fertility for crop production, they are sparsely populated by subsistence farmers with communal tenure. The conservation concern in Zambia is more about poaching, which has been rampant in the past, than about converting parks to crop land. The land issue is not as important in Zambia, and there is less pressure to convert GMAs to farmland because urbanized Zambia has a relatively low rural population density.

In Malawi, there is no coordinated national CBNRM program. This is one of the poorest countries in Africa. The few remaining wildlife are found in national parks, and soil erosion and deforestation are the major environmental concerns. Poverty and population growth combine to create political pressure to convert protected areas to crop land. Recently initiated pilot level CBNRM activities range from lakeside fishing communities to subsistence farmers on communal lands surrounding national parks or adjacent to forest reserves.

An inherent limitation of CBNRM in its early implementation in the region was its almost exclusive emphasis on wildlife utilization to supply market demands for safari hunting and tourism. There is little doubt that this wildlife focus was the most appropriate from the time of the initial efforts until the middle of the present decade, because the interests of the regional and international political communities were focused on the perceived high values of endangered wildlife resources. International donors (including USAID) and NGOs were anxious to help provide for this type of development focus. Initially, this resulted in less attention being paid to other veld and forest resources that may be appropriate for CBO management and marketing, or to the integration of wildlife with range and forest management.

There is significant evidence that attempting to apply the wildlife/tourism CBNRM model to all areas will not generate adequate economic activity to make it viable.

Much of the long-term economic potential of the human and natural resources on communal lands is being ignored and under-developed. As land form, climate, and social structures vary from one area to another, the rational use and development of the resources also shift. Opportunities for forests, range lands, freshwater fisheries, and a wide variety of marketable veld and non-timber forest products are largely ignored, even in those cases where it is the stated intent to develop them in the implementation programs. The challenge, now, is to find the mixture of existing internal consumption demands and/or external market demands for these other outputs, and to develop management scenarios to produce them in lieu of developing programs solely on wildlife utilization and tourism.

Botswana has moved ahead of the others in terms of developing non-wildlife economic uses

of its community resources through its community-based processing and marketing of marula fruits and mopane worms. Thatching grass harvesting and crafts enterprises in Namibia are other examples. These marketing efforts were initiated by the women of their respective communities, and some may develop into significant economic examples to other CBOs of what can be done.

The CBNRM approach has been used successfully as a natural resource management approach on common grazing lands in Lesotho and Pakistan, and on devolved-tenure forest lands in Nepal, where marketable wildlife resources do not exist. In the Southern African region, people who embrace the ideas of CBNRM, but live in wildlife-deprived areas, could be incorporated into the programs by this conceptual expansion of the potential scope of CBNRM.

People involved with CBNRM in the NRMP area have combined ideal principles and lessons learned about practical and political necessities to produce a consensus about the features of a potentially fully operational CBNRM program in Southern Africa (see Overview, above). The long-term potential scale of CBNRM would include all rural disadvantaged people and all rural communal lands in the region. Full-scale governmental support would mean that all resource-related ministries were involved. The potential scope of CBNRM would include sustainable use of all renewable natural resources.

The actual scale and scope of CBNRM varies. Although there is a general consensus about the complex of institutional features of a fully operational CBNRM, the complex in its entirety does not exist anywhere in the study area. Programs and activities express varying degrees of progress in achieving all of the features, and there is a general sense of optimism at all levels about the probability of continuing to advance toward the ideal.

CBNRM systems do not spring fully-formed into existence, but evolve through phases of capacity building and negotiation among interest groups. At least two evolutionary processes are operating. The first concerns changes in governmental policies and laws. The second occurs at the community level and includes development of management capabilities. Although not universal, decentralization of civil authority to the district level seems to occur before the devolution of legal rights to the community level. Neither change is likely to be implemented quickly, even when demanded by changes in policy.

What actually occurs is a gradual (or discontinuous) coming into operation of functions and authority at the new level as people (and offices) at that level gain the capacity to manage their new responsibilities, and as people (and offices) at the earlier level relinquish control.

Evolutionary change also occurs at the community level. Since social and political organization and authority differ among communities, the pace and degree of development of CBNRM at the community level varies from one location to another. Rather than the immediate creation of fully operational CBOs and community level democratic leadership, it is more common for these organizations and their leadership to evolve through a process of authority-accepting and capacity-building.

The process of creating and building the democratic representativeness and the governance capacity of CBOs has to be gradual. Many of the existing CBOs are still under the effective control of traditional authorities. Aside from family-based social units of lineage and clan, or religious congregations, the only continuous tradition of community is based on pre-colonial models under the leadership of a traditional authority (chief or headman).

Thus, many of the CBNRM "communities" correspond with the population under a traditional authority.

Devolution of rights to the community level often means, in reality, the devolution of rights to organizations that are now controlled or sanctioned by traditional authorities, and that need to find mechanisms to ensure their development toward democracy. Traditional authorities and representative democracy are normally incompatible and devolution sets up a source of conflict. Before the devolution of rights, there were no reasons for local people to create management units to contest the control of traditional authorities over natural resources, but local people are now realizing that there really are important locally-controlled resources worth contesting. Promotion of democratic organizations in the political arena is creating a gradual shift toward democratic organizations and leadership at the community level. The new organizations and leaders have little or no practical experience governing or managing. Time, education, and capacity-building are needed. Learning through experience means that mistakes will be made, and conflicts will arise that leaders and organizations will have to learn to manage.

The potential sustainability of CBNRM as a resource management system is high in terms of the commonly held popularity of the approach in the region. People in the resource dependent communities are quickly motivated to share responsibilities for the management of resources in exchange for commensurate authority over those resources and an equitable share of the benefit stream, although their managements abilities have not yet been demonstrated. Meanwhile, the foundation of national and international support is a fragile and shifting alliance of interest groups. The resilience of this alliance is not clear, but there are a number of potential fault lines. There are obvious conflicts between international animal rights groups and the regional emphasis on wildlife utilization. There is a conflict between the needs or desires for central planning and continued central governmental control over hunting quotas, versus the emphasis on responding to market demands.

There is the fundamental question of the depth of government commitment to devolution of rights versus the strong desire emanating from the local level upward, and the contradiction between democratic local organizations and traditional leaders with their ritual and customary claims to control.

There is also the issue of the capacities of various institutions, ranging from the suspect or obviously deficient management capacity of some CBOs and ministries to the supportive capacity of NGOs. At issue as well is the capacity of the market to absorb the increased production if the CBNRM programs vastly expand in scale and scope.

3.b. Findings:

The initial focus of CBNRM on the wildlife sector was correct, and has been an important force for the spread of CBNRM throughout the region.

Within the past two years, many CBOs have broadened their activities to include non-wildlife resources that provide new sources of income from the markets and strengthen the opportunity for the CBNRM process to expand in both scope and scale across the region.

CBNRM programs and activities show substantial progress toward sustainability, but changes are not uniform. The CBNRM process is complex and evolves through phases of capacity building, negotiation among interest groups, and experiences in natural resource management.

Both decentralization of civil authority and devolution of rights are necessary for CBNRM programs to operate effectively. The programs in Botswana and Namibia come closest to fulfilling both of these criteria.

3.c. Recommendations:

RCSA, other donors and NGOs should continue to promote both the decentralization of governmental civil authority functions and the devolution of proprietorship rights to CBOs in any follow-on CBNRM program efforts.

4. SOW TOPIC: PHYSICAL AND SOCIO-ECONOMIC CHARACTERISTICS.

The physical and socio-economic characteristics of the programs that are on-going shall be determined. The Team shall ascertain generally which areas contain similar characteristics so that an understanding may be achieved of the potential of CBNRM in Southern Africa. This determination shall be made using interviews with regional country practitioners among others.

4.a. Discussion:

The Southern Africa Region (the SADC nations) is a vast area of 13 separate countries encompassing over 7.5 million square kilometers lying southward from the equator in Tanzania to the Cape of Good Hope and including the island nation of Mauritius. This assessment deals specifically with Botswana, Malawi, Namibia, Zambia and Zimbabwe (See Overview).

4.a.1. *Physical.* There are at least 45 species of large mammals in the five countries covered by this assessment, 38 of which are large ungulates.

Together with the major predators and scavengers that are essential parts of this wildlife community, these animals are not only an important segment of the natural biodiversity of the region, but are also widely recognized and admired around the world because of their charisma. When the non-game species of birds, small mammals, and reptiles are added to these, they are nearly beyond the imagination of most people from the more affluent developed countries of the world. This adds to the mystique and charisma of the veld, and to the region's capacity to supply unique safari hunting/tourism experiences to meet the high world-wide demand.

Habitats are very diverse throughout the area, including the Namibian desert in the southwest, the evergreen mountain forests of eastern Zimbabwe and the cool, high plateau of Malawi. The most common vegetative cover throughout the area is a mixture of deciduous forest, thorn-shrub savannah and mixed savannah grasslands. There are major wetlands in Botswana, Namibia and Zambia.

Malawi claims the major portion of the waters of Lake Malawi which forms part of her international border with Tanzania and Mozambique. Botanically, the area is rich as the source of origin of hundreds of plants which are used by mankind. These include vegetables, medicinals, ornamentals, forages, and florals. Altogether, the physical, climatic and biological diversity of the area is of huge proportions.

USAID Project areas in Botswana and Namibia are in the arid and semi-arid tropical zones of the Kalahari, ranging northward to the less fragile and less arid river systems of the Zambezi, Chobe, and Okavango which flow from the Angolan highlands. Two project areas are in near proximity in the Okavango delta and the Caprivi strip. Sandy, low fertility soils and very low annual precipitation have severely limited the development of agriculture in these areas. Traditional uses of these lands are livestock herding and subsistence hunting and gathering. Rural human populations are of very low density as a result of the natural limitations of soil, water and climate which constrain the total biomass productivity for sustaining life.

Progressing northward into Zimbabwe, Zambia, and Malawi, the land becomes increasingly more green and fertile as precipitation and soil structure improve with decreasing latitude. Total potential biomass productivity increases significantly in response to these more amenable growing conditions, and human population density in the rural areas increases.

With this increase in the productive capacity of the land comes an increase in its capability for agricultural production. This, in turn, leads to an ever diminishing physical area for non-agricultural land-use systems of the traditional users at the same time that their population expands.

A widely accepted and frequently quoted measure is that, once human population density exceeds about 20 persons per square kilometer, there is little or no potential for the economic development and management of wildlife resources in Southern Africa.

This determination is credited to Parker and Graham¹ (original source document not seen). Some comparable information about physical and demographic aspects of the SADC countries is synthesized from two sources, below, as an illustration of Parker and Graham's assessment.

Table No. 3: Comparison of Rural Population Density to Natural Resource Areas (Forest, Veld, and Protected Areas)

<u>COUNTRY</u>	<u>AREA</u> <u>(sq. km.)</u>	<u>FOREST & VELD</u> <u>%</u>	<u>PROT. AREA</u> <u>%</u>	<u>EST. RURAL</u> <u>pop/sq. Km.</u>
Angola	1,246,700	61	8	7
Botswana	581,370	92	39	2
Lesotho	30,355	66	6	50
Madagascar	587,041	81	2	18
Malawi*	118,480	59	22	72
Mauritius	2,043	28	2	300+
Mozambique*	812,379	78	9	15
Namibia	824,290	61	14	2
South Africa	1,219,090	73	6	14
Swaziland	17,364	n/a	4	35
Tanzania*	942,799	76	40	22
Zambia	752,610	83	29	7
Zimbabwe	390,580	67	13	18

* Area includes inland waters Sources: Encyclopedia Britannica World Data Book 1998; and www.wcmc.org.uk

A review of the data in the above table shows very little in the way of a pattern that would be predictive of success for expanded CBNRM activities. Parker and Graham's approach indicates that Angola, Madagascar, Mozambique, South Africa, and Tanzania are worth closer examination for wildlife sector opportunities, and that Lesotho, Malawi, Mauritius and Swaziland are not. This exercise samples only a portion of the interface between human and wildlife populations, and does not begin to touch on the significant variables related to the enabling conditions and constraints in the socio-political context.

These data don't tell us about the degree to which rights and authorities over the forest and veld lands have already been assigned or adjudicated, nor the degree to which the holders of the authority are willing to devolve it to others.

Parker, I.S.C. and A. Graham. 1989. Elephant Decline: Downward Trends in African Elephant Distribution and Numbers (Part II); International Journal of Environmental Studies 35: p13-26.

4.a.2. Socio-economic. Pre-colonial Southern Africa has been described as a widely dispersed rural society of low human population density, high game animal density, and a traditional system of low-impact land uses which included the management and use of wildlife under communal or tribal proprietorship. Except for ivory exploitation, wildlife products were predominantly for local subsistence.

The traditional social structure over the majority of the region's communal lands is one of dispersed small village or family groups under a tribal authority which varies from one ethnic group to the next, but is essentially adapted to the natural environment. In spite of the Colonial Era, these tribal structures still exist in varying degrees.

An important part of these traditional units is their similarity, in the cultural context, of self-imposed systems of allocation and management of their natural resources.

Even though the lowest density human populations occur in the lowest biomass capacity areas, and the populations increase as potential biomass productivity increases, there is serious concern being expressed that the region's overall *population growth rate* of nearly 3.5% is not sustainable under currently perceived limitations on resource productivity.

The long-term goal of USAID's NRMP is to "increase incomes and enhance capability to meet basic human needs through sustainable utilization and conservation of natural resources", and the imputed approach has focused on improved economic utilization of wildlife through involvement of the local people as participatory managers with government and private enterprise concessionaires as the other key actors. Previously recognized high levels of international market demand for the various types of safari experiences, and the already functioning linkages between governments and private enterprises to supply this demand, were the springboards for launching the project. The success of wildlife-based CBNRM activities clearly reflects the previous observation that low human population densities, together with significant wildlife populations create the economic potential for management.

4.b. Findings:

CBNRM in the region is currently targeted on communal lands which are marginal for agriculture but of potentially high productivity under integrated natural resources management with an emphasis on wildlife utilization. There are great physical, social and economic similarities and differences throughout the existing program and across the region, but CBNRM is adaptable to most of these situations if the people are motivated by needs and opportunities.

This assessment cannot adequately address the political climate in any of the SADC countries with respect to opportunities for expansion of CBNRM programs. Prior to the bombing at the U.S. Embassy in Dar-es-Salaam in early August 1998, Tanzania (along with Angola, Madagascar and Mozambique) would have been suggested for closer examination during the design of a follow-on program.

4.c. Recommendations:

Expansion of CBNRM project activities to other countries not presently included should look specifically for large areas of common lands where the local people and the government are interested in taking the actions necessary to implement the CBNRM process. Motivation to take action is more important to the successful expansion of CBNRM than are the conditions of any particular natural resource sector.

5. SOW TOPIC: BIOPHYSICAL TRENDS.

Review literature and contact key experts among NGOs, CBNRM practitioners, government and academia, to identify broad biophysical trends which have been or are being affected by CBNRM. Classify these trends in terms of effect on the natural resource base. From available documents and interviews describe the current state of knowledge on the impacts of CBNRM in the region. Recognizing that such information is incomplete, develop an approach to document these trends during the continuation of RCSA's activities in CBNRM. The approach should include informational tools to collect, manage, analyze, and disseminate information about CBNRM.

5.a. Discussion:

Changes, over time, are an inevitable part of the evolution of all life-forms. To address the RCSA mandate "to improve the quality of life", and the RCSA SO3 of "accelerated regional adoption of sustainable agriculture and natural resource management approaches", we must face up to the reality that biodiversity will gradually (and certainly) yield to the long-term survival needs of man as we evolve into new dimensions of balancing our needs with the finite realities of our environment. The concept of *sustainability*, itself, implies the capacity to adapt and modify to fit the shifting circumstances of imposed changes due to a myriad of internal and external forces. Such things as population(s), productive capacity, markets, technology, basic knowledge, policy, and community identity are dynamic and will continue to force changes and/or narrow the resource management options in the future.

It is too early in the process, an average of 3-4 years of accelerating activity, to measure the impacts on biodiversity of the CBNRM activities in the region. In most cases, the community institutions are only beginning to reach the stage where they can play an active part in management interventions. There are no long-term programs linked to monitoring of CBNRM activities for measuring biodiversity (other than wildlife census).

Namibia is just now in the initial stage of a project specifically aimed at the long-term measuring and monitoring of biodiversity in its CBNRM areas for comparison with similar non-CBNRM areas. This project will try to establish whether there is any causal linkage to any identifiable changes. This is, necessarily, a long-term effort in order to allow time for CBOs to arrive at the management stage of their programs and, at the same time, to account for cyclic climatic variations.

There is growing evidence to show that wildlife populations are increasing, and empirical evidence from some observations that habitats are being maintained on functioning CBNRM areas. A recent survey of three CAMPFIRE wards in Zimbabwe (Conybeare, 1998) concluded that wildlife populations were increasing, there was very little reduction in the area of the habitat, and no significant loss of or modification of habitat – other than possibly by too many elephants.

In northwest Namibia (Kunene region), community involvement in curbing poaching and local tolerance of life threatening animals such as lion, elephant and rhinoceros have made significant contribution to general and sustained increases in wildlife numbers between 1982 and 1997 (Durbin, et al, 1997). The endangered black rhinoceros is increasing in numbers on the communal lands of this area. In the same area, elephants are currently increasing and expanding their range onto communal lands.

In Zambia, the CBNRM areas under both ADMADE and LIRDPA which are generating the most income from safari hunting are also seeing an increase in wildlife numbers. Recognition of high value for legitimate off-take has decreased the impacts of poaching and increased community interest in managing these animals.

Some species in certain areas, such as the hippopotamus in the South Luangwa Valley, are considered to be over-abundant at present. Meanwhile, there is an air of sensitivity among wildlife officials in Botswana and Zimbabwe when they are asked how large the elephant herds on particular areas will be allowed to grow. Crowe (1995) reports that the elephant herds in northeastern Botswana increased from 45,000 in 1987 to 78,000 in 1994, while other big-game species such as buffalo and zebra have declined significantly.

Discussions with officials from the forestry, wildlife, and parks sectors in Malawi revealed that the habitat on their protected lands is lush and highly diverse in plants and non-game wildlife. But, they have suffered a significant loss of biodiversity (not CBNRM related) due to intense and frequent subsistence hunting and poaching of the game species. This has led to the disappearance of most dependent predator and scavenger species as well. Very high density human populations around the perimeters of these protected areas have also caused some serious localized decreases in plant diversity where intrusions are frequent and in large numbers. Malawi's recently liberalized forest policy is intended to benefit those people and communities interested in “co-management”, and this will be one focus of the new CBNRM project to be sponsored by USAID/Lilongwe.

Any trends in the forest, range, and surface water resources that might be taking place within CBNRM areas are either confined to small areas with negligible regional impacts, or masked by the cyclic dry-wet conditions of climatic variation and the regular seasonal fluctuations of the ecosystems. Up until now, the evidence has not been collected and subjected to routine tests of validity and reliability, so definitive answers are not possible.

Current information about the impacts of CBNRM is essentially limited to monitoring big game populations in order to set harvest quotas.

Although empirical data on species distributions, populations, fecundity and condition of game animals can give a *relative* measure of productivity of the system over time, base-line scientific data of the *quality and quantity* of the habitats supporting these animals are scarce. Except for some site specific aerial photographic monitoring of agricultural land clearing, and some generalized vegetative monitoring by weather satellite imagery, not enough is known about the past, present, and trend conditions of the forests and rangelands in terms of the sustainable productive capacities of the resource base.

Biodiversity is a complex ecological concept which should not be loosely equated to the temporal changes in abundance of any one (or few) individual species (either plant or animal) without comparative longitudinal trends to other associated species. In the absence of reliable historic baseline data for the associated (and to some degree interdependent) group of species, systematic monitoring and inventory of their quantity and quality can provide the basis for reliable trend analysis and lead to valid temporal conclusions. These measures can then be harmonized with the cyclic climatic patterns to establish a predictable and independent measure of the long-term “normal” span of the zones of fluctuation.

Field measurements of this type, done on an individual management unit basis, should be expected to be the minimum essential information required if the people responsible for long-term management of a “natural” system are expected to be able to sustain that system. Such ground level data can then be used to sensitize and fine-tune the color resolution on weather satellite imagery (available at low cost) for monitoring both short and long-term vegetation patterns. These, in turn, can be matched up with periodic game census to predict the best population distributions for a management unit.

At least two organizations are using these weather satellite images to track vegetative cover and condition trends in the region: the Botswana Range Inventory and Monitoring Project (BRIMP) located in the Ministry of Agriculture, Forestry and Range Division (funded by the U.K. Department for International Development); and the Famine Early Warning System (FEWS). Even so, there is an expressed opinion by wildlife managers and/or biologists in government agencies and some international NGOs, that baseline survey and monitoring of the natural habitats is too expensive and time consuming.

There is limited (and optimistic) empirical evidence to suggest that CBNRM has induced a shift away from the clearing of land for agriculture in Zambia and Zimbabwe, as a result of more marginal opportunity costs for agriculture in comparison to game management; but, this is neither *broad* nor a *trend* at this time.

Likewise, the reversion of some large cattle stations back to wildlife production (e.g., Namibia and Zimbabwe), is too recent and of insufficient area to evaluate biophysically, except as specific individual cases.

In some of the CAMPFIRE areas in Zimbabwe and ADMADE areas in Zambia, concern is rising that human population growth is putting more pressure on the conversion of wildlife habitat to agricultural production.

The idea of family planning has begun to surface in some of these CBNRM areas, and has been openly discussed by men in community meetings with technical advisors.

5.b. Findings:

After several years of CBNRM development activity, most of the CBOs in the NRMP areas are only beginning to reach the stage where they can make active and positive management interventions.

Although there is anecdotal evidence and some measured data on wildlife populations and trends of a few species, there is a lack of specific evidence to support any conclusions of clearly identifiable, positive or negative, broadly distributed biophysical trends in the region that can be attributed to CBNRM.

5.c. Recommendations:

RCSA should coordinate with the Namibia Ministry of Environment and Tourism, SADC, FEWS, and BRIMP to explore the technical and financial feasibility of establishing a biodiversity monitoring program which can be coordinated on a regional scale. Several models exist at varying levels of precision and measurement intensity.

Technical inputs and training are needed at the local level to organize and implement systematic measurement and monitoring of habitat conditions at the management unit level, and link them to wildlife population levels.

6. SOW TOPIC: ECONOMIC DIMENSIONS.

Using existing data available in NRMP programs in the region, determine an estimated value for CBNRM, both in direct terms and linkages to the local (perhaps household) and regional economy by identifying potential economically significant resources to the extent possible. Describe how other income sources such as tourism do or can contribute to the people involved in CBNRM. Provide a depiction of how CBNRM optimize resource (or land) management in terms of benefits to households, and communities, and how this affects national accounts. Determine the estimated value from CBNRM in terms of income flows, risk reduction, and resource optimization using data available in project reports and evaluations. Similarly, determine implied values based on traditional, religious, or social mores.

Identify key development needs stemming from this analysis which indicate the economic, social significance, and sustainability of CBNRM. Identify requirements for further analysis on these areas required for USAID/RCSA follow on CBNRM programs. In providing information on income, any significant local CBNRM propagated enterprises will be described.

6.a. Discussion:

It is appropriate in considering the value of CBNRM to include: direct use value, indirect use value, option value, existence value, and bequest value. Given the broad goals of CBNRM at the local, national and international scales, all of these are components of the value of the natural resource base that CBNRM is intended to enhance. Clearly, it is not possible to specify quantitative measures of all these, but it is important to recognize them as part of the economic values that CBNRM efforts are generating.

In addition to the direct values there are indirect values stemming from linkage to other valuable activities, spin-offs and secondary effects of CBNRM. Other activities and enterprises at the local, national and international scales are affected by CBNRM related activities. It is not possible at this time to quantify the associated values, but it is possible to give illustrative cases, and in so doing identify some of the economically significant resources.

6.1. DIRECT VALUES

6.1.a. Wildlife. By far the most economically significant resource associated with CBNRM in Southern Africa is wildlife. Where wildlife occurs in sufficient numbers trophy hunting and tourism have created the potential and the reality for considerable community income. CBNRM activities have facilitated the creation of organizations that allow the communities and households to capture part of the monetary value associated with wildlife oriented enterprises.

In Botswana's Chobe Enclave Conservation Trust and Sankuyo Tshwaragano Management Trust, safari company concessions and trophy fees provided US\$85,000 (for 1997) and US\$ 120,000 (for 1998), respectively. In Zambia under the ADMADE program, US\$46,000 flowed to Mwanya Sub-Authority for community development and resource management. CBNRM activities under CAMPFIRE in Zimbabwe and LIFE in Namibia are also providing income to communities and households. The natural capital, the ecosystem that generates the wildlife flows, has considerable value and this value is enhanced by CBNRM.

While some communities have wildlife on their common lands that attract hunters, others do not. Some do have proximity to landscape features that can attract tourists: fishing in some areas (tourist fishing in Caprivi, Namibia was valued at US\$113,000 in 1994) and birding in others. These areas were once habitat for a wide range of other wildlife, and this wildlife may return if conditions are amenable. CBNRM activities over a longer time period can help establish community efforts that will enhance conditions for wildlife and the potential for tourism in their areas.

In a contingent valuation study in Namibia, Jon Barnes, *et al*, established an aggregate economic value associated with wildlife-based tourism of US\$202 million (US\$738 per tourist). This translates into US\$ 67 million in net national income to Namibia and US\$40 million in consumer surplus to the tourists.

Given that CBNRM efforts have the potential of improving wildlife in many areas, the future aggregate values and consumer surplus are likely to grow significantly and add to Namibia's net national income. Many of the other SADC countries have similar potentials.

6.1.b. Veld Products. Some CBNRM efforts are exploring the potential of various non-game products that come from their communal lands. The ones most often mentioned are marula fruit, mopane worms, thatching grass, cochineal and grapple (devil's claw).

While some of these (cochineal in Okwo WMA and grapple in Kwanenga District, both in Botswana) are just being explored, others are providing earnings to households and communities. In the Namibian CBNRM program it was recognized that the expansion in tourism was causing an increasing demand for thatching grass. The harvesting and marketing processes were improved and the women of three communities involved in collecting thatching grass increased their incomes from US\$15,000 (in 1994) to over US\$100,000 (in 1997).

In Botswana's Tswapong Hills Kgetsi ya Tsie Project, mopane worm, thatching grass and marula activities have added an approximate average US\$450 to the annual income of **each** of the 85 women involved. A larger scale marula processing effort in the Gwezotshaa CBO has total revenues approaching US\$350,000 and expected net revenues in the order of US\$200,000 to the Trust. This operation is, however, currently subsidized by the Botswana NRMP to a considerable extent, and the estimates of net income are heavily skewed toward the Trust's side of the ledger while neglecting the opportunity to boost the profit margin for the people actually involved in providing the collection and processing labor to the enterprise.

While the management, operation and compensation to labor need to continue to improve, there is demand for veld products, and CBNRM is enhancing the income potential.

There is also a complementary relationship between tourism and veld products coming from communities. Demand for crafts and local products increase with the number of tourists coming into the area.

6.1.c. Services. Although not occurring presently to any significant extent, CBNRM activities can provide additional community and individual incomes through provision of various land and resources management services and labor. There are numerous service activities being carried out by government agencies in rural areas, and the local people are in an excellent position to perform many of these. The CBNRM process can help identify the demand for these services and organize the community members to provide them. The result would be an increase in value for the nation and the specific communities, as well as income for individuals.

Just as the wildlife management authorities have successfully employed local people in their anti-poaching, census and other wildlife management activities, the rural labor pool could easily be developed for:

- * collection and processing of seeds and other plant propagation materials for nurseries;
- * prevention, detection and suppression of wildfires;
- * construction and periodic maintenance of public service facilities, i.e., roads, fences, water points, public buildings.

Depending upon the local approach used, these services could be provided by direct employment with the responsible agency, contracts for service through the CBO, or individual contracts. In any case, the expected results would include increased effectiveness at decreased cost. In some cases, e.g., seed collection, there would also be an expected increase in total productivity together with improved seed quality. Seed collection would also foster management interest and activity related to the trees that provide these seed crops.

6.1.d. Ecosystems' Values: While these economic values are difficult to quantify in monetary terms, economists do agree that people hold these values. For the Southern African landscape, these values exist at the community level, the national level and the international level. People at the community level see these aspects of the landscape as their heritage and as what they hope to leave for their children. At the national level the ecosystems are seen as both generating income streams for the present and the future and as the national heritage. Likewise, people in other countries, especially developed countries, see the Southern African flora and fauna in special ways that translate into a monetary willingness to pay to assure long-term ecological integrity.

The research of Barnes, *et al*, in Namibia gives insight into these values and the way they relate to CBNRM. The contingent value survey of tourists viewing wildlife in Namibia posed questions concerning willingness to pay into a wildlife conservation fund in Namibia. The average tourist expressed a willingness to pay US\$23 per year, which aggregated to US\$6.3 million per year for the number of tourists in 1995. In addition, the average tourist expressed willingness to pay US\$5.75 into a community trust fund aimed at improving the rural communities living within the natural ecosystems. This is an aggregate value of US\$1.6 million per year.

It is reasonable to assume tourists coming to other Southern African countries have similar values that translate into willingness to pay. Also, it is reasonable to assume people not actually coming to the region hold values toward these ecosystems. For example, if one-tenth of the U.S. population was willing to contribute the price of a cup of coffee (\$1.00) per year, the aggregate willingness to pay would be in the order of US\$25 million per year. One could expect people in other wealthy nations to have similar ecosystem values.

6.1.e. Derived Value of CBNRM. In general, the direct value of CBNRM is a derived value arising from the broad range of activities associated with the landscape that are enhanced by better ecosystem management.

Better management will occur where the communities and their individual members more fully understand the consequences of their actions and recognize the potential for compensation for their natural resource management activities. CBNRM is accomplishing this in many areas and has potential for positive effects in additional areas of the region.

6.2. INCOME SOURCES AND LINKAGES.

Income to the people will occur to the degree that they are involved in providing products and services demanded in the market place as compensation for their efforts and for the use of various forms of capital they control. Communities will receive royalties and rents from private businesses that use the natural capital, i.e., the landscape that is controlled or managed by the communities.

6.2.a. Communities. The various CBNRM efforts are inducing a number of spin-offs and secondary effects. The greatest of these are associated with tourism and safari hunting. All four of the NRMP countries have experienced considerable spin-offs and secondary effects of tourism and hunting related activities. A few examples can illustrate these. In all four countries safari camping facilities have been built in communities creating jobs for both men and women. In Botswana, the Sankunyo Tshwaragano management trust members elected to establish a store in the community. The Lizauli Traditional Village and community-run camp site were established in the Caprivi area of Namibia. In Chikiva community of Zambia, a clinic was built and staffed with funds derived from safari hunting. It is estimated that the savings in time for community members results in a “social rate of return” of almost 100 percent per annum. In Zimbabwe’s CAMPFIRE program there have been a number of secondary effects resulting from the additional revenues flowing to the rural district councils and downward to the communities.

While veld products are bringing additional revenues into the communities and having some secondary impacts, these are not yet dramatic. To the degree that tourists come into these communities the demand for veld products and crafts is likely to increase, and result in additional household incomes.

Since, other than game guards, few other land management services have been pursued, the revenues from such activities and resulting spin-offs are presently limited. Land management services, however, could ultimately be a meaningful part of individual’s incomes and induce greater community economic activities.

6.2.b. Commercial and Transportation Sections. Given that a substantial part of the tourism sector is associated with the regions' landscapes and that CBNRM has potential for increasing the potential for tourism, tourism is likely to continue to grow. Growth will occur through linkages between the CBOs and the commercial services and transportation sectors that support tourism.

Increasingly, in many parts of the world, tourism is becoming the major economic sector, resulting in increasing employment in the various service sectors. This is likely to be the case in Southern Africa.

6.2.c. Agricultural Sector. There are linkages between CBNRM and agriculture, but it is not clear as to what their consequences will be. In Namibia and Zimbabwe, lands once in agriculture are being managed for wildlife.

But in Botswana there is conflict between 'non-resident' cattle grazing interests using communal lands and the wildlife-based CBNRM activities of the local communities.

6.2.d. Dynamics. CBNRM is in a transient stage. It certainly has not yet developed into a mature system having major impacts on the management of much of Southern Africa's landscape. As specific aspects of CBNRM are adopted and applied to activities on the landscape, economic consequences will increase. With the linkages that exist between the landscape and tourism, many sectors will experience positive effects.

6.3. VALUE IN CBNRM "CAPITAL".

The value of CBNRM is to a considerable degree a derived value coming from the valuable final products that it facilitates. Although tourism and safari hunting presently are the dominant economic activities, other complementary products and services are being developed. What CBNRM can do is lead to the enhancement of the various types of "capital" that lie behind these products and services.

Fundamentally, there are three types of "capital" involved. First, and foremost, is the natural capital i.e. the landscape with its wildlife. This capital, if improved, can generate more economic value, especially in tourism. Involving the community members in management activities is a solid way to improve the natural capital base. Second are the physical facilities necessary for producing products and providing services. This capital is best provided by the private sector, but there are roles for the community to play in its development. Third, and probably the most important form of capital, is human capability. For the other forms to come together in the necessary way, human organizational skills and ingenuity are needed.

Economic value is manifested when these three types of capital are brought together and result in an expansion of the output of products and service desired in the market place. CBNRM will have derived value to the degree that there is the expansion of economic output from the combination of these three fundamental forms of capital.

Income to the people involved with CBNRM will occur to the degree that they are involved in the provision of products and services demanded in the market place. Monetary income will flow to the individuals and communities as compensation for their efforts and for allowing use of the various types of capital they control. Individuals will receive wages and salaries, and the community will receive royalties from private businesses that use natural capital (i.e. the landscape) the community controls and manages.

6.3. *TOURISM/SAFARI HUNTING.*

Tourism all around the world is growing very rapidly as real incomes rise. The World bank has recognized this trend and has declared tourism the world's largest economic sector.

Southern Africa is well placed in the market to see continued expansion of demand by tourists, and this will translate into increased income for the nations, communities and individuals.

6.3.a. *Present.* Data do not exist that relate tourism activities directly to the rural communities and incomes, but it is helpful to consider aggregate cases to gain insights into potential.

In 1980 Zimbabwe had a total of 268,000 tourists with 36,000 from Europe and North America. By 1996 these figures had grown to 1,600,000 and 270,000 respectively. These people came for a variety of reasons, and clearly for some it was for the African landscape and people. Data on sport hunting give insight into the growth in tourism demand associated with the landscape. In 1986 there were 4,250 days of sport hunting; this grew to 14,140 days in 1993. The value in 1993 was US\$12.8 million, up from US\$10.8 million in 1992. In the years since, numbers and value have both continued to grow, as have all forms of tourism associated with wildlife and the landscape.

The expansion in tourism in Zimbabwe has occurred during a period when other sectors were declining. From 1985 to 1993 real wages declined by 50%, this was especially the case in rural areas. Most rural people do not have formal employment; only 12% of the total population has formal employment. CBNRM based programs like CAMPFIRE play an important income role in some rural communities. The aggregate of all CAMPFIRE communities' incomes in 1996 was US\$1.75 million. This translated into maximum household incomes from CAMPFIRE sources of US\$550 per household, a very significant amount for rural households where the annual per capita income is near US\$500.

It should be made clear, however, that not all CAMPFIRE communities are receiving this level of associated income. The higher levels occur where safari hunting occurs. Other "appropriate authority" communities receive far less income because of the much lower level of tourism. The point here is that tourism and safari hunting can contribute meaningful incomes to households and communities participating in CBNRM.

Namibia provides further insight. By 1995 Namibia had 276,000 tourists with 83,000 from Europe and North America. Ashley and Garland (1994), in helping understand the community income potential of "eco-tourism" analyze three types of up-market tourism lodges: one run entirely by an outside entrepreneur with no community involvement; one that voluntarily shared a percentage of revenue with local people; and one that is established through a joint venture and partnership between an investor and a community. Their analysis shows that all three enterprises boost local jobs and individual incomes, but the revenue sharing and/or joint venture do more overall.

Cash earnings ranging from US\$540 (for a small composite) to over US\$27,000 (from a joint venture lodge) can be a significant contribution to poor rural communities. Accompanying jobs contribute similar amounts to household incomes.

At this time it is not clear as to what the income potential in rural communities of other countries might be, but it is expected that the organizational aspects of CBNRM can contribute to development of the potential.

6.3.b. Future. It is highly likely that tourism in Southern Africa will continue to grow rapidly. Tourism is growing rapidly globally; given the advances in the global economy this is likely to continue. Demographics of the developed economies point to greater travel. There is broad public interest in African people and their landscape (e.g., Disney World's new African landscape attraction). Media coverage of the region's landscape and wildlife is extensive. Additionally, it is easy to get to Southern Africa – there are frequent non-stop flights from Europe and North America.

The growing number of visitors to the region has spurred private sector investments in facilities. Governments are improving roads allowing easier travel within and between countries. Governments have also made it easier for visitors to enter and leave their countries. These improvements open the way for those interested in Southern Africa, but are less adventurous than travelers of the past.

Residents of the Southern African region are also traveling more, both within and between countries. Urban dwellers are becoming more interested in the wildlife and the ecology of the region. These travelers along with the ones from abroad will expand the demand for activities and services in the rural areas. Communities willing to improve the quality of their natural capital and their community environments should be able to expand their income from tourism.

6.3.c. Other sources of income. Those are less impressive to rural communities and to individual enterprises, are less impressive, although for the communities without tourism potential the income from these can be important. There is demand for some veld products, and these are contributing income to communities and individuals.

It is not clear as to how robust the demand is for marula products, mopane worms, cochineal, grapple and such products. It is possible that if a number of communities expand collection and production of some particular veld products, supply could outstrip demand, resulting in price and income decline. However, over-supply does not seem to be a problem in the foreseeable future. For example, of the 15 currently organized CBOs in the Botswana NRMP, 9 are wildlife and 'other' products oriented (5 of which include crafts), 3 are wildlife only, and 3 are veld products only. Diversification of income producing activities is gradually increasing.

6.3.d. Other products. Those products that have been traditionally collected from the landscape can also be collected from communal lands under CBNRM as, for example, the collection and sale of salt by one trust in Botswana.

These can contribute income, but if not managed well, may cause long-term ecological costs that diminish other incomes.

An example is wood fuels and charcoal. In Zambia 96% of household fuels come from wood. Charcoal accounts for 2.3% of GDP, and it is estimated that 41,000 rural people are involved in charcoal production and 45,000 others are involved in transport and distribution. While this product provides income to people, if not carefully managed the result can lead to declining incomes. In some areas where there is strong demand for crafts, the raw material for the crafts is being diminished. CBNRM programs could be very beneficial in these situations.

In Botswana, Namibia and Zimbabwe studies are showing that wildlife for meat and hides can also be profitable enterprises. Thus far it has been commercial farms undertaking this production. In Namibia, some of these farms have joined together to create conservancies and are removing fences to increase wildlife production. These groups are not community-based in the usual sense of CBNRM, but they are encouraging conservation of landscape resources and generating income.

6.3.e. Land Resource Management. Landscape resources (ecological capital) are interconnected and intertwined. There are structuring (dominant) processes and entrained (dependent) processes. The result is that, although there is great diversity and complexity in ecosystems, a small set of variables may have a great influence on the sustainability (resilience) of the ecosystem. Clear examples of structuring variables or processes are elevation, climate, and fire; others are less clear. What this perspective of ecosystems leads to is a view that ecosystem management should be taken up holistically to avoid human actions that can fundamentally change the ecosystem structure and induce loss of its inherent resilience. A straight-forward example is maintenance of a species at populations skewed so low or so high that they upset the relationship with other species and the broader system that supports all of them. The result is loss of productivity and ecological resilience.

This view of ecosystems supports the concept of CBNRM as a meaningful approach to managing Southern Africa's complex landscapes. While there is substantial knowledge about the regions ecosystems, no one knows precisely how they should be managed on a day-to-day basis. People closest to the unfolding ecological processes have the most intimate relationship with the ecological system and with the consequences of positive or negative actions.

The CBNRM process, in principle, provides a means for all community members to contribute their knowledge to the management of the complex natural resource system.

6.3.f. Optimization. Theory of natural resource economics suggests that the owner (the person or group that gains benefits and bears costs associated with resource) will allocate the resources in such a way that the values (benefits), expressed in present net value terms, will be maximal. Given the relative prices and costs of extraction of the natural resources, a high discount rate will spur more rapid use, and a low discount rate will slow the rate of use. Additionally, given the discount rate, relatively higher prices and lower costs will lead to more rapid use. Optimal use formulas are derived mathematically.

Economic theory can point the way, but empirical studies – a larger proportion of the studies – indicate that the renewable natural resources are generally used at rates exceeding the economic optimum given prices, costs, and a 'market' discount rate. It is not clear why this is the case. It is possible that the planning period for renewable natural resources is shorter than the regenerative period, and that this pervasive uncertainty is perceived by the decision makers. As a result, the present net value of resource use is over-estimated (where all other conditions are correctly interpreted). If the future prices are underestimated and/or future costs of resource use are over-estimated the result is, again, an over-estimate of the present net value of use. Each of these cases leads to non-optimal use of the resource. If these uses are consumptive or ecologically damaging, they will lead to serious degradation of the overall system and loss of the capacity to sustain use at the economically natural (optimal) levels. Short-term financial obligations or exigencies can lead to similar exploitive allocative decisions: “take it all now and pay off the debts.”

6.3.g. The CBNRM Approach. Involving the community more explicitly offers an approach that has a greater likelihood of optimal natural resource use. CBNRM is being implemented where people are greatly dependent upon natural resources and the landscape for their basic survival. From an agricultural perspective, these landscapes are generally considered marginal, and most tillage based systems have failed. The landscape resources are seen by the user-community as their long-term source of goods and products for survival. Because of long-cycle drought and inadequate markets they do not see a means for quick gains from the resources. They have an inherently long planning horizon. Also, with limited means, they are likely to have a low discount rate (although, given extreme short-term survival conditions, they may temporarily demonstrate a very high discount rate). Financially, they have little liquid collateral and thus little opportunity to leverage their financial position. Fundamentally, with local control over the resource base and a functioning community decision making process, it would not be expected that a community would opt for over-exploitation. It would be expected, theoretically, to arrive at an optimal allocation (plan of use) for its natural resources.

6.3.h. Traditional, Religious, and Social Mores. Traditional values of communities are more likely to be reflected in natural resource decisions where the CBNRM approach is used. The approach provides means of rationalizing the decisions of the group and the individuals within it.

Traditions can be reflected by both the individuals and the group and be incorporated in the decisions.

Reflections of the community's values leads to decisions based on those values. CBNRM also provides means for the community members to explicitly address the manner in which the consequences, benefits and detriments, will be distributed among the community members. They have the opportunity to set and meet their own standards of equity.

There are values beyond the community that must also be considered. The society beyond the local community also has values toward and interest in the landscape resources.

Under a CBNRM approach these societal values become broad, clearly defined constraints. Constrained by the broader sanctions of society, the community's authority is consistent with broader societal goals. The same social constraints may be seen in the pattern of household decisions within a community; a similar structure tends to keep household decisions consistent with community values.

6.3.i. Economic and Ecological Resilience. The future can never be seen with perfect clarity. Many large scale forces operating on a global scale can cause a community's or a nation's fortunes to rise and fall. External environmental and economic events can send shockwaves through communities and nations. Communities with limited resources are best advised to evolve a wide range of economic and ecological strategies for ameliorating these shocks. CBNRM, if clearly thought through and made operational, can provide a means for broadening the production base, improving market access, and increasing cash flow. Establishing a community-based decision process has a high likelihood of providing the community with long-term economic and ecological resilience.

6.4. NATIONAL ACCOUNTS.

6.4.a. Traditional Accounts. Traditional economic accounts reflect all products and services that enter markets, are valued there, and for which data from the market transactions are collected. To the degree that products and services derived from CBNRM enter the market place they will be reflected in these accounts. Both the direct expenditure and the growth in tourist facilities will be reflected in the accounts. Similarly, the incomes associated with veld products and other products and services resulting from effective CBNRM will add to the national accounts.

6.4.b. Green Accounts. As described above traditional national accounts deal with things of established monetary value. Supplemental accounts intended to complement traditional accounts are being proposed to cover the many things of value that do not have an established market value. In these accounts, estimates are made of the environmental service flows that stem from natural capital and that are not reflected in market exchange. Many market goods stem from natural processes within ecosystems; decline in the viability of these processes will reduce the revenues from these products. Over-stocking of range and savannah systems reduces animal and vegetative yields, and ultimately related revenues. To the degree that CBNRM leads to decisions that enhance the long-term ecological potential of ranges and savannahs, greater productivity results.

Similarly, tourism is dependent upon viable ecosystems; for continued foreign exchange earning through tourism, the ecological systems must be maintained. Also, non-monetary values can be reflected in these accounts. If the national heritage is seen as inclusive of the landscape and the wildlife, enhancement through CBNRM increases their resilience to provide these services into the long-term future, thereby enhancing the national accounts.

6.5. KEY DEVELOPMENT NEEDS INDICATING THE ECONOMIC, SOCIAL SIGNIFICANCE, AND SUSTAINABILITY OF CBNRM.

Key development needs from an economic and social perspective deal with who has control and decision making authority over the landscape's natural capital, understanding of the characteristics and productivity of the natural capital and the demand for products and services that can stem from the combination of natural capital and community organization. Explicitly, these development needs are:

6.5.a. The establishment of clear entitlement to natural resource use and management of the lands of the community.

6.5.b. The power and authority for the communities to develop enterprises associated with the community's lands and to enter into long-term contracts with other enterprises.

6.5.c. Clear understanding within the community as to how individuals of the community are to be compensated for their contributions to use and/or management of the community's resources.

6.5.d. Clear understanding of the community's natural resource base and its productive potential.

6.5.e. An understanding of the demand for products and services associated with the natural resource base.

The inherent sustainability of CBNRM ties to motivation and responsibility. If the community members understand the potential for gain (demand for products and services) and the potential of their natural resource base, they will be motivated to act. But, there must be a legal foundation for their actions and the broader society must sanction their actions. Individuals must understand their relationship to the community and the broader society. The fundamental key development need is clear understanding of the potential gain and the accompanying duties and responsibilities necessary to earn a share of that gain.

6.b. Findings:

Incomplete and non-structured economic and financial data related to incomes, costs, numbers of jobs, and market supply and demand dynamics for products and services make it impossible to produce a meaningful economic assessment of the CBNRM program.

Indicators in many of the documents show that the CBNRM process is, however, providing a broadened range of financial and economic alternatives for rural people and specific examples look promising for the future.

6.c. Recommendations:

The NRMP needs to introduce systematic and structured collection of economic and financial data into project monitoring and evaluation activities; output and input data need to be quantified in monetary terms for computation of net gains (or losses) and ultimate comparison to project costs and benefits. Specifically:

6.c.1. economic analysis, aggregate benefit and cost relationships should be estimated for major activities and products associated with CBNRM and the natural environment, i.e., tourism, safari hunting, veld products. Data on demand (marginal value) and costs will provide means of estimating total value, consumer surplus, cost and income measures. Such measures would allow calculation of the contributions of natural capital and people on the landscape to national income. To the degree that CBNRM enhances natural and human capital productivity, measure of the value of CBNRM will be established. (The work of Jon Barnes in Namibia and Ivan Bond in Zimbabwe are good starts on this type of analysis).

6.c.2. financial analysis, the monetary gain of specific entities involved in market oriented activities, is facilitated by systematic collection of data on operating expenses and revenues. Categories of expenses should include: labor, materials, equipment and facilities, overhead, capital costs, and other direct costs. On the revenue side, prices and quantities of products and services provided are needed. These data allow for the calculation of various indicators of financial effectiveness: net income, net margin, return to assets, and return on net worth. It is important to recognize here that natural and human capital are the two fundamental assets of the community or enterprise. With these cost and revenue data it is possible to assess the effectiveness of the CBNRM process on communities, households and enterprises.

Donor activities should intensify their focus on market analysis and development to help the communities recognize and meet economic demand for products and services of the rural landscape, including but not limited to wildlife and tourism.

7. SOW TOPIC: CBNRM ANALYTICAL FRAMEWORK.

Describe a draft hypothetical analytical framework upon which CBNRM depends. Outline the framework's key enabling conditions, their sequencing, inter-relationships, and relationships to achieving strategic results. Review existing project documents to determine the hypotheses inherent in the design of these activities.

This framework may take several forms: it may address CBNRM as interventions in a utilization system, it may look at anticipated impacts upon key trends, such as benefit flows and degradation, or it may look at impacts of various elements in a matrix of social organization (e.g., policy, technology, and information by household, community, sub-national regions, and national levels of organization).

Whatever choice of analytical framework is arrived at, the framework would serve as a key design element in the NRMP follow-on for the RCSA. This draft framework will be a key element in determining the enabling conditions of CBNRM for this assessment. The draft framework will then serve as a base to be refined during the design of a follow on project should one be required.

7.a. Discussion:

CBNRM, as advanced by the governments and international donors in Southern Africa, is predicated on a range of conditions found in the region, broadly identified as: economic, demographic, technological, ecological and institutional. All are in a constant state of change.

With the political change in the region during the past 25 years, economies over the intermediate time period are expected to accelerate, and over longer time periods, economic integration is expected. Urban growth will accelerate when urban incomes rise relative to rural incomes. People with above average education will be drawn to urban areas. Technological change will occur in urban areas and radiate outward. Communication technologies and transportation will play major roles in the increasingly modern economies. Agriculture in rural areas with high quality resources will continue to be commercial in structure and to adopt modern technologies. Rural people will be employed, but the wage rates will continue to be low because of market forces. Agriculture in areas of marginal lands will remain traditional in its practice, providing at best a subsistence level of living for those remaining on the land. Typically, people on the marginal lands will have low levels of education and few marketable skills. Few employment opportunities will exist, and a large proportion of people's livelihoods will depend on the ecological systems of these lands. Based on past observations, if there are not changes in the way the people relate to the land, the ecological systems will deteriorate.

These marginal lands of Southern Africa, because they are among the last remaining habitat for African mega-fauna, have special value. But it is value that, up until recently, was not legally capturable by the inhabitants. Instead, the institutional structures in most of the nations have alienated the people from the natural resources that generate this value. CBNRM is an evolutionary approach that is intended to facilitate shifts and changes in the understanding of the natural resource base, in the management of the resources and the institutional structure, and in processes that will allow the people managing and conserving the resources to capture, in meaningful terms, the values associated with these scarce resources.

7.1. *KEY HYPOTHESES INHERENT IN THE PRESENT CBNRM PROCESS.*

The basic hypothesis for CBNRM is re-iterated here from the Overview section of this document for the sake of ready reference and continuity to this section of the assessment:

“For a community to manage its resource base sustainably, the community must receive direct benefits arising from the use of the resource(s); these benefits must exceed the perceived costs of managing the resource(s) and must be secure over time.”

Since initiation of CBNRM in the Southern Africa region a large number of documents have been prepared which reflect a number of useful hypotheses for analyzing follow-on activities. These key hypotheses are:

7.1.a.. The ecological resiliency of landscapes is threatened by inappropriate activities that are causing

resource decline and threaten the well being of people dependent upon them;

7.1.b. Economic and institutional forces external to the rural communities can induce inappropriate landscape use;

7.1.c. People from outside the region value the landscape resources and are willing to help support conservation efforts;

7.1.d. Marginal landscapes have few economically viable uses, are occupied by very poor people with few marketable skills, and have their greatest economic potential as “natural” capital;

7.1.e. Individuals and communities most intimately involved with these resources can best manage the natural capital;

7.1.f. Safari hunting and tourism associated with wildlife and the landscape offer the greatest potential return to the natural capital on these marginal lands, although veld products offer complementary enterprises;

7.1.g. Individuals and communities that take actions with landscape resources should reap the consequences of their actions, both positive and negative;

7.1.h. Government agencies have important roles in facilitating, supporting and understanding the natural capital's potential and in protecting the aggregate environment;

7.1.i. There is considerable indigenous ecological knowledge and expertise in the region;

7.1.j. Commercial enterprises and services in the region can link communities to product and labor markets in developing enterprises and management capabilities;

7.1.k. There is need for NGOs that can provide services to communities not provided by the government or market sectors;

7.1.l. International donors will play important facilitating roles as CBNRM moves from early trials to become institutionalized as a mature local, national and regional process.

7.2. KEY ENABLING CONDITIONS FOR CBNRM:

These conditions are subsets of the broader conditions found in the Southern Africa region. They, too, are best understood in terms of economic, demographic, technologic, ecological and institutional dimensions:

7.2.a. Ecosystems of protected areas and communal lands remain viable in much of the region; improved management can lead to stability of ecological functions;

7.2.b. Landscapes of interest, being largely marginal lands, have low opportunity costs in comparison to other economic uses;

7.2.c. The region's scientists and land managers have sufficient knowledge of the ecosystems and their functions;

7.2.d. Southern African landscapes and wildlife are of considerable interest to the people of economically developed countries;

7.2.e. Expanding air service to the region enhances tourism potential;

7.2.f. Tourism is viewed as an economically viable sector by the government and market sectors in the region;

7.2.g. The rural transportation infrastructure is improving both within and between countries;

7.2.h. There are few competing enterprises for the natural resources on marginal lands;

7.2.i. People of the rural communities occupying the marginal lands desire jobs and improved quality of life.

7.3. KEY ENABLING FORCES FOR CBNRM.

Whereas the key enabling conditions create a fertile context for CBNRM, key enabling **forces** lead to explicit actions that directly foster CBNRM:

7.3.a. Residual traditional values among the rural community members – people desire to stay on their ancestral lands;

7.3.b. Motivated market sector entrepreneurs -- from large-scale tourism companies to small-scale local businesses -- are ready to provide the broad range of services and products that support a growing sector;

7.3.c. Capable local and national NGOs are ready to provide needed services not provided by the government and market sectors;

7.3.d. National governments are motivated to foster habitat conservation and community development through legislation and policy change;

7.3.e. Responsible governmental agencies have acquired capacity to deal with CBNRM, are strong supporters of the approach, and will facilitate its implementation;

7.3.f. Strong international donor commitment to facilitating CBNRM implementation.

7.4. ENABLING ACTIONS NECESSARY.

The following actions are necessary if the momentum of CBNRM in the region is to continue and CBNRM is to become institutionalized at all levels:

7.4.a. The communities must further develop and foster internal processes necessary for decision making and actions that lead to long-term continuity. Whereas the community may have evolved processes for dealing with other important issues, it is likely they will have to develop new processes and business practices for integrated resource management;

7.4.b. Government must continue to take legislative and policy action to allow communities meaningful authority, responsibilities and duties that will lead to their obtaining of benefits and bearing costs related to their activities in managing the natural resources;

7.4.c. International donors must continue to be involved in facilitating the international evolution of CBNRM in the region, but on a decreasing scale. Donors need to facilitate the acceptance of CBNRM by all the actors, thus promoting the institutionalizing of CBNRM and sustainability.

7.5. INTER-RELATIONSHIPS:

There is congruence of the enabling factors making up the context of specific CBNRM efforts. Many of the conditions and forces have been created and established in much broader social, economic and political processes; these have major influence on the viability of CBNRM in specific applications. The situation is that while these affect CBNRM efforts, CBNRM efforts are not likely to affect the conditions and forces at the broader level. Instead, it is necessary that specific enabling actions stem from this broader context.

7.6. AN ANALYTICAL FRAMEWORK FOR ASSESSMENT:

There are three significant development stages in the CBNRM process; initiating, implementing and sustaining;

The *initiating stage* is characterized by:

an **event** (e.g., market opportunity, loss of a species), which creates **awareness** of a need, problem or opportunity, which causes an infusion of **ideas and information**, creating **motivation** to take action;

The *implementing stage* is characterized by:

organizing resources for action (planning, capacity building, re-structuring, etc.), followed by the infusion of **technical inputs** delivered through **extension and training**, which create **change**;

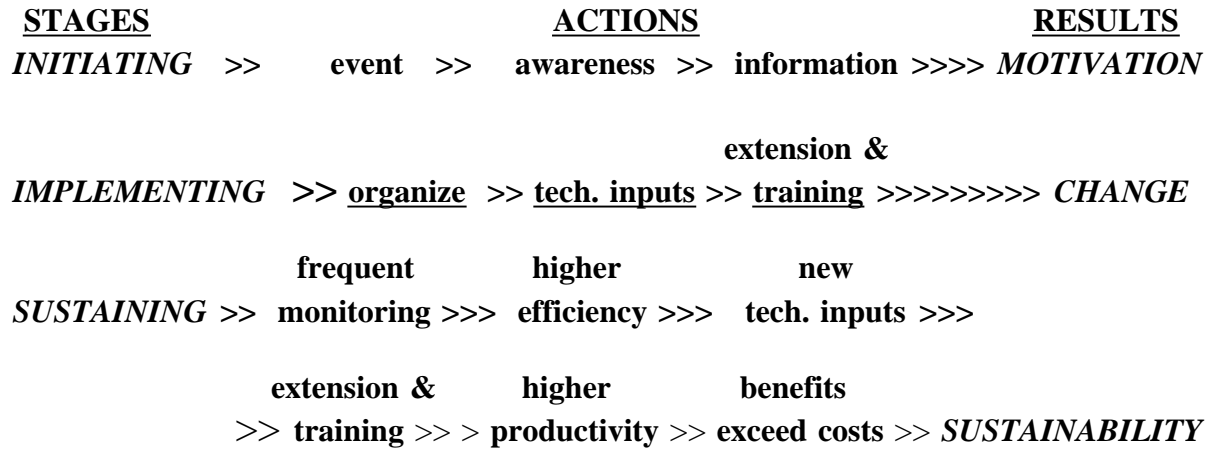
The *sustaining stage* is characterized by:

management of the system to assure that regular **monitoring and evaluation** lead to identification of **new opportunities** and **increased efficiency** which will require infusion of **new technologies** through regular and systematic **information and extension** leading to higher **productivity** to secure a mixture of **benefits** which exceed the **costs** of the process, leading to **sustainability** of the system.

This framework describes a means of tracking the process of CBNRM development. It can be used at any level of the operation (agency, district, CBO, etc.) where inputs are being made to help achieve the overall objective. As an assessment tool, it was used to determine broad trends and situations to identify the degree of momentum and development at the program level. As a design tool, it could be used to chart the elements necessary in a program or project, as well as help to estimate time and budget necessary to achieve a certain point in the process. As an evaluative tool, it could be used to determine the comparative stages of development between CBOs, or districts, or agencies at a specified point in time.

At the time of this assessment, CBNRM development processes in the NRMP have moved to the stage where change is accelerating. Actions requiring new technical inputs to address a broader mix of resource opportunities have moved it through the **implementing stage** toward the early **sustaining stage** (see the schematic, above). There is also substantial evidence of adequate motivation throughout the process to continue to drive CBNRM into the **sustaining stage**. Each program, project and CBO has different characteristics, different successes and failures, different lessons learned.

CBNRM ANALYTICAL FRAMEWORK (Schematic)



It is the mobilization of the knowledge gained in each effort combined with the enabling actions stemming from the broader context that can propel CBNRM during the sustaining stage. Facilitating this mobilization is an appropriate role for the donor community.

7.b. Findings:

The hypothetical analytical framework described here is a functional way of tracking the development stages and progress of CBNRM projects but it is not yet adequately developed to serve as a reliable tool for the assessment.

7.c. Recommendations:

Donors should consider using this analytical framework in the design, monitoring, and evaluation of CBNRM projects.

8. SOW TOPIC: EFFECTIVENESS IN SERVING CLIENTS' NEEDS.

Consider CBNRM in a regional, bilateral, and non-presence country context, how effective have approaches of CBNRM been transferred and are clients' needs being served in each context? In addressing the issue of regionality, describe the connection between field-testing of approaches within a national or sub-regional framework and application of the lessons learned within the regional framework of Southern African CBNRM partners (NRMP Regional Project). To the extent possible, determine how sustainable are USAID-supported interventions in CBNRM at this time.

8.a. Discussion:

CBNRM from the perspective of USAID/RCSA. CBNRM in the Southern African region exists in a complex institutional environment. This assessment reviews NRM projects in Botswana, Namibia, Zambia, Zimbabwe and the regional program based in Malawi.

Other countries that the team did not visit are apparently also testing or developing CBNRM activities in some way, and South Africa and Tanzania have just recently joined into the SADC but have not begun any RCSA/NRMP activities.

Regional organizations, such as SADC, numerous multilateral and bilateral donors, such as the World Bank, European Union, United Nations, the Netherlands and Norwegian governments, and various NGOs, such as IUCN and WWF, also play important roles in the spread of CBNRM within the region.

The structure of the USAID program is also complex and evolving. There are bilateral missions in four of the study countries (Malawi, Namibia, Zambia, and Zimbabwe), while Botswana has graduated to a 'non-presence' status. In the region, Lesotho and Swaziland are also non-presence countries, while Namibia, South Africa and Zimbabwe are expected to graduate to non-presence status within a few years. RCSA was established in Gaborone, Botswana and, in addition to managing new regional programs, is also administering the Botswana NRMP.

In addition to programs related to natural resources within individual countries, there are some NRM issues that transcend national borders.

These transboundary issues include managing water resources, including watersheds such as the Zambezi River Basin system, the potential for managing contiguous parks or protected wildlife areas in adjacent countries, and the potential for international collaboration in managing or conserving other terrestrial resources that migrate across state borders or aquatic resources in rivers that form state borders.

Within each country in the region, the responsibility for managing various renewable natural resources and tourism is fragmented among different departments. This institutional fragmentation makes it more difficult for donors to coordinate and manage program activities in a non-presence context. Another complication within each country is the patchwork of different specific laws and policies that are associated with different systems of rights to resources. These laws and policies are in a very active stage of evolution which makes USAID (or other donor) liaison difficult in a non-presence context.

Who are the clients that should be served by the USAID/RCSA? The four USAID bilateral missions visited clearly indicated that they are, or should be, the primary clients, and that the regional program should be supporting bilateral country programs and looking for ways to facilitate those programs. This is essentially what is occurring now.

RCSA also needs to provide some level of residual management in non-presence countries for continuing programs that were initiated by earlier bilateral missions or as part of earlier regional programs. In the transitional case the Government of Botswana is a direct client of RCSA because of the continuing implementation of the Botswana NRMP. This appears to be working satisfactorily, perhaps because RCSA is physically located in Botswana.

One bilateral mission noted that people from non-presence countries could attend the PCC (Project Coordinating Committee) meetings to learn about what is happening in the region.

SADC, and its Technical Coordinating Units (TCUs), are obvious clients for RCSA, as are certain NGOs that operate in a regional capacity. Can the governments and ministries of individual countries be clients of a regional mission? If so, in what capacity? Are the people in the region (or the region, as opposed to the SADC organization) a client? Can (should) USAID-RCSA act in the perceived best interests of the region as client? Are there other clients as well?

The current restriction of USAID/RCSA-funded CBNRM activities to only four countries in the region is a product of historical circumstances rather than strategic planning. For future programming, RCSA should not remain constrained by history. The SADC region contains thirteen countries, including the dynamic and resourceful South Africa. Future programs should play with the full deck, which increases the options for future regional programs and requires decisions to be made about where USAID-RCSA should allocate its scarce resources.

What do RCSA's clients need, and what sorts of services can a regional center provide? Some needs were clearly stated, such as help with training and capacity-building, communication and networking, especially with region-wide or multi-country exchanges of ideas and lessons learned, regional information systems, sponsoring workshops and exchange visits on transboundary issues, and monitoring and evaluation. One specific area is to encourage national-level political leaders to continue with decentralization and devolution.

The 1997 Biannual SADC-NRMP Conference at Victoria Falls, which included traditional leaders and Parliamentarians among others, was very successful and provides a clear example of how the regional program is helping national programs. A regional councilman from Kunene (Namibia) who was blocking progress toward the formation of a conservancy changed his mind after talking with pro-CBNRM government people from other countries at that conference.

The veterinary fences along Caprivi-Botswana border are a clear transboundary issue. For some issues like this, the top people in the ministries have to actually attend and talk about issues or see other ways for anything to change.

Is USAID/RCSA restricted to facilitating the activities of the organizations (bilateral missions, NGOs, etc.) that are its clients? Is indirect facilitation the only appropriate format, and only at a regional level? Can any RCSA programs be adapted to the needs and conditions of any one country? What other services would be useful and appropriate?

The interaction of national and international programs is occurring in terms of three processes: testing national approaches within each country; the international transfer of lessons learned; and the evolution of CBNRM approaches.

The testing and modification in place of national programs has been occurring within the context of a strong awareness of lessons learned in other countries. RCSA has provided important resources to strengthen this international transfer of ideas through the Regional NRMP.

In addition, the most recently established NRM program (Namibia), as well as recent changes in Zambia and new development of interest in Malawi, South Africa and Tanzania show that the evolution of CBNRM is still continuing.

Here it is important to distinguish between the replication of CBNRM approaches versus the adaptation of CBNRM principles and lessons learned.

There is general agreement within the region on broad CBNRM principles. Within each country the national policy environment allows for replication of CBNRM activities within numerous communities. Even so, the communities within each country's CBNRM program are heterogeneous in size, composition, and activities.

What are the most important threats to the sustainability of USAID's CBNRM programs in the region? The most important and obvious threat is the latent reluctance of governments, ministries, and the private sector to share power and resources with the communal sector. Even when there is a willingness to share, ministerial fragmentation and lack of capacity may cause the failure of efforts to decentralize and devolve power. Another hurdle is the slowness in establishing community-level rights to resources, because effective CBOs will not develop until communities actually have something to manage. People are not interested in wasting their time in meaningless activities.

Communities will not and cannot learn to manage until they have something worth managing. Another problem is the lack of management capacity at all levels: community, district, and national. These problems are interlinked, as are their solutions. Other threats are market-related. There may be inadequate market demand for some CBNRM products, resulting in a lack of incomes to the communities. Programs may also fail because they fail to demonstrate the benefits of CBNRM to communities. One reason for this may be the non-transparency of the relationship between conservation and benefits. In the longer-term, CBNRM will not be sustainable unless the programs generate the financial resources to permit the CBOs to achieve economic self-reliance.

The sustainability of wildlife conservation efforts also must be evaluated in different terms - the long-term survival of animal species (including humans) and plant (habitat) populations. The human population in the region is increasing, as are people's demands for improved sustenance (food security) and a better standard of living. Co-existence with wildlife has real physical costs for people residing in weakly-constructed houses, growing crops, raising livestock, walking around and conducting their daily activities in the unrestrained presence of elephants, buffalo, hippos, and lions. The costs and dangers that are evident daily must be balanced by people's perceptions of their intrinsic, socio-economic, and financial benefits from conserving wildlife and their habitats.

The rewards must be both real and apparent.

One problematic element in CBNRM programs in many areas is that they are funding infrastructural improvements, such as schools and clinics.

These may be what the communities want and may demonstrate how the community benefits from CBNRM activities, but there are problems. First of all, CBNRM is supposed to be enriching communities. Are governments viewing CBNRM-funding for infrastructure as an excuse to transfer funds from CBNRM communities to non-CBNRM communities? What happens to community motivation when government does not produce the recurrent funding for staff and operating expenses, and the schools and clinics remain empty shells?

When assessing the sustainability of CBNRM, it is important to step back and take a broader view of potential threats. One example is the CAMPFIRE program, which is criticized because its district-level management is seen as an obstacle to community-level devolution of benefits and rights. Malawi and Zambia are attempting now to decentralize civil authority to the district level. People in those countries would be happy to achieve what is seen now in Zimbabwe as an obstacle to progress. It must be recognized that there are political pressures in Zimbabwe to re-centralize back to the level of the state, as well as financial pressures (for parks departments to become self-financing) in several countries that could cause state-level agencies to compete against CBOs for wildlife and tourism revenue.

8.b. Findings:

National programs are being tested and modified in place within the context of a strong awareness of lessons learned from other countries. RCSA has provided important resources to strengthen this international transfer of ideas through the NRMP. The RCSA-funded regional network of organizations, people, and mechanisms (biannual conferences, newsletter, publications, etc.) is effectively disseminating information (including lessons learned and best practices) about CBNRM throughout the region.

Policy changes show an evolution of CBNRM approaches from the earlier emphasis on decentralization of funding to the district level, toward a devolution of rights and control over resources to the community level.

The national policy environment within a country allows for replication of CBNRM activities, but the communities within each country's CBNRM program are heterogeneous. Differences in the institutional environments among countries make it impossible to replicate programs from one country to another. Instead, CBNRM principles and lessons are being adapted to each country's unique environment.

8.c. Recommendations:

Continue to support the regional network of organizations, people, and mechanisms that is effectively disseminating information about CBNRM.

9. SOW TOPIC: SUSTAINABILITY AND FUTURE ACTIVITIES.

Estimate the activities that will be required and the time necessary to take CBNRM to sustainability and to a point where USAID Southern Africa might be able to withdraw from direct support to developing CBNRM management systems and enabling frameworks. At this point CBNRM groups will understand their role and management requirements, and be able to have sufficient incomes to operate from year to year. What more must be done to ensure sustainability of CBNRM in Southern Africa?

9.a. Discussion:

The issue of sustainability is complicated by the fact that each country program is at a different stage of development, and within each country, communities have also reached different stages of development. From the information gathered during this assessment and from the experience of the team members, key features and criteria of a sustainable CBNRM program were presented in the Overview of this report. This section is an assessment of the extent to which these features and criteria have been met.

9.a.1. ACTIVITIES NEEDED TO ENSURE SUSTAINABILITY AND EFFECTIVE WITHDRAWAL OF DIRECT USAID SUPPORT:

At the bilateral level each country has made different levels of progress in each area. Generally, the existing CBNRM communities in each country still require support for organizational and technical capacity building, new information, and inter-community liaison. There is potential for new communities to participate, and they will need the full range of support. All NRMP countries still need to work on improving the enabling policy and legislative framework, particularly with respect to land tenure, the harmonization of sectoral policy and legislation, and community access to markets for their products and services.

An important activity requiring strengthening is the development of representative CBO associations which can speak on behalf of CBNRM constituencies in the national political arena.

Most of the above conditions are being achieved as governments and NGOs gain the capacity to provide the required services. This capacity is still limited or the number of service providers is small, or both.

At the regional level, the following activities can facilitate the move toward sustainability:

9.a.1.a. support to further study and dialogue on common policy issues and on lessons learned;

9.a.1.b. support to market linkages and diversification of opportunities;

9.a.1.c. continued support of regional exposure visits for peer groups in order to speed the spread of ideas, approaches and lessons learned;

9.a.1.d. support for regional biophysical inventory and monitoring activities; and

9.a.1.e. support for socio-economic monitoring of capacity-building progress.

The time needed to ensure sustainability and effective withdrawal of direct USAID support is highly variable on a country by country basis. A common thread throughout this assessment is that CBNRM is an adaptive and evolutionary process, which moves along at a pace governed by factors which include community response time (often slow), government response time (sometimes very slow) and the influence of external events linked to international politics and the global economy. It is not possible to predict precisely when CBNRM will have reached sustainability in the region. One response might be that sustainability has been achieved when all of the criteria have been met, but clearly this will be different for each country.

Some general conclusions, however, can be drawn from experience and progress in the region. For a CBNRM program to meet the sustainability criteria in full, it is likely to need between 10 and 15 years from the time of inception. None of the NRMP countries have reached this "full" stage; Botswana, Zambia and Zimbabwe are arriving at the early sustainability stage in 10 to 11 years, while Namibia will reach the same level in only 6 or 7 years. Much of the credit for Namibia's rapid movement in the process can be attributed to the shared experiences of its neighbors.

The problem of gauging sustainability is one of the degree of acceptable risk weighed against an unclear standard of perfection. However, if USAID withdraws support at PACD from Botswana, Namibia, Zambia and Zimbabwe, it is highly likely that CBNRM would continue in each country since it is sufficiently established nationally as a program and the necessary structural features are in place. Progress toward expanded scope and scale would be slowed, and the risk of failure in individual communities increased. Other donors would pick up at least some of the activities that USAID has been supporting.

9.A.2 ADDITIONALLY ACTIVITIES TO ENSURE SUSTAINABILITY

An option for USAID to consider in terms of sustainability is to leave some form of trust fund for in-country use by national CBNRM programs through an NGO or PCC mechanism. This is already being discussed in Namibia and in Zimbabwe. Such a fund could also provide support to national programs for specific activities which have some regional value added, such as policy research.

The Botswana Government has established its own CBNRM fund (the Community Conservation Fund), to which USAID could contribute.

Another option is for RCSA to support additional regional coordinating units, similar to the one in Malawi which supports the SADC Wildlife TCU, to broaden its involvement in other natural resources sector activities beyond wildlife. The success of the Malawi unit is an excellent example of how coordinating regional activities, e.g., networking conferences for sharing lessons learned and best practices, and exposure meetings for government policy-makers through SADC or regional NGOs can serve to promote and support CBNRM.

Consideration should also be given to support for a regional coordinating body for CBNRM activities which is multi-sectoral and located at the highest possible government technical level, such as director or deputy director. To some extent the Malawi unit and the Project Coordinating Committee (PCC) fulfill this function, but is limited in scope because of its focus on wildlife. In any event, the transformation of the PCC to include countries other than NRMP countries should continue.

9.b. Finding:

Established national CBNRM programs in Botswana, Namibia, Zambia and Zimbabwe will continue without further USAID assistance beyond current PACDs, but their long-term opportunities for sustainability and expanded scope and scale can be significantly strengthened by a continued regional presence facilitated by RCSA.

9.C. Recommendations:

RCSA should consider appropriate follow-on activities to accelerate and strengthen the information networking system established in the Malawi Technical Coordinating Support Unit as current projects reach their PACDs. An enhanced regional information network will allow for the continued success of the CBNRM process and for its expansion into the ares of states as opportunities develop; sustainability is a moving target as a steady flow of new ideas and shared information is essential to the long-term positive impacts of CBNRM.

10. SOW TOPIC: WOMEN AND DISANVANTAGED GROPUS.

(General requirement of the SOW). Describe all CBNRM activities that assist disadvantaged groups, specifically those that assist women, or where women have a particular advantage. Collect and include gender-desegregated data wherever possible. Recommend how women (and other disadvantaged groups) could be assisted in future CBNRM activities.

10.a. Discussion:

Human rights concerns are an inherent and fundamental component of all CBNRM activities in the study area. The 13 SADC countries face tremendous challenges to their efforts to achieve sustainable social and economic development. The legacies of colonialism and apartheid are apparent in many of these countries.

The majority of the populations are historically disadvantaged because these people have been largely denied access to health, educational, and economic facilities and to advancement opportunities for decades.

Only by fully addressing the needs of these people, can full transformation of the countries in this region take place. CBNRM programs and activities focus on working with these rural people who are living on communal lands. The importance and sensitivity of land distribution and tenure in all of these countries, and securing local control of the natural resources (including wildlife) are significant considerations for CBNRM in the motivation of people to take action.

Both in theory and in practice, disadvantaged people are the primary beneficiaries of CBNRM programs and activities in the study area. Thus, any increases in income, improvements in access to and control over resources and marketing opportunities, and improvements in infrastructural facilities are benefitting the appropriate clients. There is less emphasis in these programs and activities on reaching relatively more disadvantaged sub-populations within this poor rural population, e.g., those disadvantaged by gender, age, ethnic identity, etc. They are not commonly targeted for special assistance or attention. Two of these sub-populations in the study area are the San (Bushmen) and women.

The democratic principle of equal representation and power (one person, one vote) is now universally accepted and strongly promoted in the political arena throughout the study area, but the equality of women and some ethnic groups is not as widely accepted in the social arena.

Some female chiefs and chieftainships traditionally exist in some societies in Southern Africa, and family and social group membership is based on matrilineality in some societies and patrilineality in others. But generally, the simplest societies (such as the San) are characterized by more social (and gender) equality, and the more complex and densely settled societies by more inequality.

10.a.1. THE SAN (BUSHMEN) IN BOTSWANA AND NAMIBIA.

Pre-colonial societies in Southern Africa were heterogeneous. They varied in many ways, including in their primary mode of livelihood, scale, complexity, social and political organization, power, and relationships with other people. A few people, such as the San, were hunters and gatherers, lived in small-scale mobile bands, and had a small-scale and simple socio-political organization. A band was the largest social or political unit. There were no powerful traditional political authorities (chiefs), the highest traditional political authority being the headman of a band, with little or no coercive authority and leading primarily by example. Other pre-colonial societies ranged in mode of livelihood, societal scale, population density, and mobility from semi-nomadic pastoralists, through agro-pastoralists, to densely settled fishing communities and agriculturalists. In terms of political organization, power, and relationships with other peoples, these societies ranged from less to more warlike, domineering, and imperialistic with correspondingly variable intensity of traditional socio-political authority up to kings and kingdoms.

Throughout the region, the small numbers of hunting and gathering peoples have been pushed onto the marginal lands by the pressure of other, more populous societies. Traditionally the San have been dominated by other people, and they have retreated to the semi-arid margins of the Kalahari in Botswana and Namibia. During the years of anti-colonial warfare, inter-ethnic hostility added another dimension when some of the San were employed as scouts by the South African military.

In both countries, the San generally remain vulnerable to threats from other groups, particularly richer cattle herders.

In both Namibia and Botswana, the CBNRM programs have enabled minority groups such as the San to gain greater control over their resources and greater income generating opportunities. A San community was the first to have a conservancy formally established (gazetted) in Namibia, and several San communities in Botswana are forming trusts, some in partnership with residents from other ethnic groups.

However, there is another dimension of sustainability that must be noted when dealing with communities. The complete complex of features characteristic of CBNRM (see Overview) does not always translate well into San communities, where people usually prefer to reach decisions by consensus and are uncomfortable with concepts of representation and majority decision-making. San have kept their own traditions of non-authoritarian and consensual self-governance. Particularly in these cases, the self-governing needs of the community are more important to program implementation than the abstract ideas of outsiders. Governments and donors should be sensitive to the rights of people to determine their own modes of organization and representation.

10.a.2. GENDER EQUALITY AND EQUITY.

Women's participation in the process of social, economic, and political transformation is crucial to the process of change. Their influences on their families and the wider interests of society need to be fully taken into account. Women and children are the majority of the poor, uneducated, and unemployed, and are victims of violence. Gender disparities in education, health, housing, economy, and democracy and governance affect women directly and also constrain the rest of society because of women's crucial role in rearing, caring for, and educating children. Women must be fully integrated as participants and beneficiaries of the development process.

To the extent that gender disparities are recognized and considered important in the different societies and countries, there is a recognition that women have been disadvantaged in all ethnic categories. Trying to redress the gender disadvantage means that Namibian women of European descent may qualify for USAID program assistance, and apparently some have been sent for training. However, since the CBNRM program concentrates on working in rural communal areas, this generally restricts the program to working with women of African or mixed descent.

There are income-generating CBNRM activities in Botswana and Namibia in which women are the direct and primary beneficiaries. All of these activities deal with natural resources (marula fruit, thatching grass, palm fronds, mopane worms, weaving baskets, and other handicrafts) other than wildlife. This has implications for the scope (only wildlife) and gender (only men) of CBNRM programs that continue to focus exclusively on wildlife utilization, and which may prove difficult in directing benefits to women. This is being surmounted where rural households receive direct financial benefits from a wildlife-based CBNRM program. Women in these households, especially when they are heads of their households, will receive direct benefits without having been singled out for special attention.

Experience with CBNRM activities in the study area also reveals a dynamic evolution to the issue of women's involvement in natural resource management. When programs in Namibia began, they centered around wildlife (the men's sector of activity). Early discussions and decisions were made by male headmen and elders. As the program has matured and changed focus from wildlife utilization to developing representative community management institutions, the role of women has increased. This did not happen because external donors insisted upon it, but because local people recognized that women are key stakeholders and decision-makers within the community.

Women are increasingly elected to management committees, take on the role of community activator, are hired as community resource monitors, receive wildlife revenues as heads of households, etc. This process has ensured that women have been able to take a more central role in community natural resource management rather than remaining marginalized.

10.b. Findings:

Disadvantaged rural poor people are the primary beneficiaries of CBNRM activities, and their marginal (in terms of agriculture) communal lands are becoming profitable lands in terms of wildlife production systems.

As CBNRM programs have matured and changed focus from conserving wildlife to developing representative community management institutions, the role of women has increased.

10.c. Recommendations:

Continue to monitor and evaluate the effectiveness of CBNRM activities in distributing control and benefits equitably throughout the communities.

IV. LESSONS LEARNED:

- * The CBNRM process in Southern Africa is confronted by the same basic set of enabling and constraining conditions and forces that are encountered anywhere that CBNRM is operating.

Even though the focus on wildlife utilization and management is some-what unique, the specific resources to be managed raise mostly technical issues, while the process of actually getting management done by community groups is more dependent upon solving the dynamic social, cultural, political and economic empowerment issues.

- * CBNRM is a collaborative process to involve communities in natural resources management. It should not be viewed as a means of establishing community self-sufficiency because there are too many external forces driven by government policies, markets, technology changes, and competing uses for the land and resources to expect communities to operate independently.
- * The dependent users of natural resources on common lands respond positively and effectively to the needs to manage and conserve those resources when they acquire the authority and responsibility to act for enhancement of their own benefits. This authority is commonly acquired in small increments (such as the right to collect the fruit of a tree without the right to cut the tree). Long-term commitment and interaction between the parties in authority (governments) and the parties wanting to enhance their authority (communities and individuals) are needed to fully enable the CBNRM process.
- * CBNRM programs are process-oriented, complex and evolutionary in nature; they must overcome inertia against change which, in most cases, can require five or more years of technical intervention efforts just to achieve the motivation needed to move from the initiating stage into the implementation stage where real changes will begin to occur. Progress is incremental, building on a series of successive changes as the experience and motivation of the participants increase.
- * Even though the policy environment within a particular country enables and promotes replication of CBNRM activities within that country, differences in the institutional environments between countries make it impossible to replicate programs from one country to another. Instead, CBNRM principles, concepts and lessons must be adapted to each country's unique environments.
- * Broadly conceived assessments of programs, such as this one, are rarely complete in their examination of all of the many complexities of programs targeted at a wide geographic area. There are many remaining details of the CBNRM process which must be addressed in the specific contexts of place, time, budget and political reality during the process of project design.

**V. RECOMMENDATIONS FOR REGIONAL FOLLOW-ON ACTIVITIES
(1998-2003)**

A. Background

The operations during the last ten years in Southern Africa have demonstrated the effectiveness and efficiency of the CBNRM concept.

Gains include policy frameworks developed in several countries that support CBNRM, a regional network, while still incomplete, functioning to transfer knowledge about best practices and appropriate technology while providing a forum for dialogue between policy makers and CBNRM practitioner across the region. The establishment and legal recognition of CBNRM units in Botswana and Namibia provide not only study opportunities but also examples of how CBNRM can function.

USAID bilateral missions have recognized the appropriateness of supporting CBNRM and all, except South Africa, are now looking to new natural resource management projects with CBNRM components.

The role of the RCSA will be to assist these efforts to become successful. RCSA should assist the non-presence countries, as well, wherever possible.

B. Activities that RCSA should furnish.

There is a great need to analyze CBNRM management activities that work. Why do these things perform when others fail. The LIFE project is undertaking innovative methods of distributing the profits from CBNRM activities. These approaches should be evaluated and tested in other places to see if they actually can be transferred. Farmer's organizations in Zambia are undertaking new activities that require communities to plan and work together.

These techniques and methods may be appropriate for the region. Kenya has a well developed system of wildlife farms run by communities that result in profit and conservation of the natural resources. Should these systems be transferred to CBNRM in Southern Africa. We believe the answer is "yes".

Networking among CBNRM and NRM practitioners is not a common practice in Southern Africa. The practitioners are not well integrated into the world's network of CBNRM. There are many approaches, proven technologies, policy frameworks in Southern Africa, Greater Africa, and the rest of the developing world that could be very effective in Southern Africa if they were better known, adapted for regional use, tested locally, and monitored for acceptance and productivity. This should be a major activity of the RCSA natural resource program in the next five years.

One of the most effective means of communication in the region has been getting partners and ultimate customers together to discuss approaches and problem resolution. What has been missing is the ability to meet with groups outside the region.

RCSA should continue to support regional interchange among practitioners of CBNRM and widen the network to those outside the region.

Another very important role of RCSA is to provide region-wide market information that provides potential opportunities for income. This will require identifying markets that exist both in the private sector and the public sector, and providing intermediary services to the players in these markets. For example, every National Forest Service in the region collects tree seed every year. These operations are costly and ineffective.

CBNRM communities could profitably collect seed for the departments as contractors. There are many veld products that have market value. The collection, processing and marketing of these products is unsystematic and inefficient. Prices and costs are not clearly known. Buyers and sellers distrust each other, partly because they don't understand the other's problems and needs, and partly because the product quality and quantity constraints of the market are not transparent and clearly understood by both sides. Good examples are thatching grass, marula fruit and firewood.

Policy development to support better management and appropriate utilization of the natural resources is required.

Every country in the region is suffering from dis-aggregated authority over the public lands and the resources on them. In Botswana, the forest department is responsible for managing the forest but another department is responsible for controlling forest fires.

The RCSA should assist the region in understanding natural resource management and what framework of policies is required to provide the appropriate enabling conditions that will result in sustainable biodiversity, economically significant income from the natural resource, and appropriate management schemes such as CBNRM.

The partners and customers of the RCSA in these activities are the USAID Bilateral Missions, the other donors that support natural resource management, the NGOs and CBNRM communities, and the Governments of the Southern African Region.

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ANNEX B

CONTACTS

The assessment team met and talked with the following people during the USAID-RCSA sponsored assessment of CBNRM programs in the region, 25 May to 4 July 1998

Botswana:

USAID (SO-3 Team), phones 267-324-449; fax 267-324-404
Plot 1 48 1 8, Lebatlane Road (P.O. Box 2427, Gaborone)
International mail or Pouch address to USAID/Gaborone

1. Albert Merkel, Agriculture and Natural Resources (A/NR) Development Officer (amerkel@usaid.gov)
2. Candace H. Buzzard, Project Manager (cbuzzard@usaid.gov)
3. Oliver Chapeyama (olchapeyama@usaid.gov)
4. Donna Stauffer, Program Development Officer
5. Tekane Tekane, Project Development Officer
6. Elizabeth Sodestrom (AAAS Fellow), Water Resources Advisor
7. Beatrice Zulu-Siwila, Program Assistant/Environment
8. Robert McCulloch (retired Agriculture and Natural Resources Development Officer)

CHEMONICS NRMP TEAM, phone 267-306-396; fax 267-300-978
(P.O. Box 131, Gaborone) (botsnrmp@info.bw)

1. Richard L. Smith, Chief of Party.
2. Laura Vinoly, Administrative Officer
3. Gary Clark, Human Resources.
4. John Hazam, Community Extension Advisor.
5. John "Spud" Ludbrook.
6. Wilf Slade
7. Pauline Wynter.

Department of Wildlife and National Parks (DWNP), phones 267-371-349, 267-371-405, fax 267-312-354, P.O. Box 131, Gaborone

1. Sedie C. Modise, Director (dwnpbots@global.bw) [REDACTED]

Department of Crop Production and Forestry, Division of Forestry, Range Ecology, and Bee-Keeping, Ministry of Agriculture, phone 350-688; faxes (for all in MoA) 356-027, 307-057 (Private Bag 003, Gaborone)

1. K. K. Kajinga, Chief Forestry, Range Ecology, and Beekeeping Officer
2. M. Sekgopo, Forest Officer, Management of Indigenous Woodlands
3. Raymond M. Kwerepe, Principal Rangeland Ecologist, Rangeland Ecology Section, tel: 267-350-511 (work), 267-328-790 (home) (brimp@info.bw)

CBNRM Assessment Document

4. Greg Stuart-Hill, Consultant Team Leader, Botswana Range Inventory and Monitoring Project (BRIMP), phones 350-440 (work), 306-484 (home) (brimp@wn.apc.org)

Policy Analysis and Management (Natural Resources), Ministry of Agriculture, phone 267-350-566 (work) or [REDACTED]; fax 267-356-027

1. Ntjidzi Manyothwane, Agricultural Economist (daps@global.bw) (350-566)

Institutional Reinforcement for Community Empowerment (PACT-IRCE), phone 267-314-757; fax 267-314-784; Plot 246, Moremi Road (Private Bag 245, Gaborone) (pact@info.bw)

1. Joan K. Leavitt, Co-Director
2. Jonathan HaBarad, Community Development Specialist, Social Science Advisor

The World Conservation Union (IUCN), phone/fax 267-371-584; phone 267-301-584. Plot 2403, Hospital Way (Private Bag 00300, Gaborone) (iucn@info.bw)

Regional Office for Southern Africa (ROSA), 6 Lanark Road, Belgravia, Harare, Zimbabwe, (P.O. Box 745, Harare), phone 263-4-728-266, -267; fax 263-4-720-738 (sia@rosa.iucn.ch)

1. Ruud Jansen, Country Representative, IUCN Botswana

Namibia:

USAID

1. Gary Cohen
2. Carol Culler

Directorate of Environmental Affairs (DEA), Ministry of Environment and Tourism (MET), phones 264-061-249-015, 016, 017, 018; fax 264-061-240-339 (Private Bag 13306, Windhoek)

1. Jonathan (Jon) Barnes (jb@dea1.dea.met.gov.na)
2. Jo Tagg (jotagg@iafrica.com.na)

LIFE Project, World Wildlife Fund, phone 264-61-239-945; fax 264-61-239-799; 68/A Robert Mugabe Ave., Windhoek (P.O. Box 9681, Windhoek)

1. Karl Mutani Aribeb, Programme Officer
2. David Callihan, Management Advisor (callihan@iafrica.com.na)

Namibia Community Based Tourism Association (NACOBTA), phone 264-(0)61-250-558; fax 264-(0)61-222-647 (P.O. Box 86099, Windhoek), 18 Liliencron Street

1. Maxi Louis, Project Manager

Zimbabwe:

USAID, phones 263-4-720-630, 720-739, 720-757; fax 263-4-722-418 or 263-4-720-722; 1 Pascoe Avenue, Belgravia, Harare (mail to P.O. Box 6988, Harare); International mail to:

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Harare (ID), Washington DC 20521-2180, USA

1. Eric R. Loken, Chief, Agriculture and Natural Resources (A/NR) Division (SO1 Team) (eloken@usaid.gov)
2. Charles R. Cutshall
3. Joseph Zvakwidza Chizororo, NRM Specialist (jchizororo@usaid.gov)

CAMPFIRE Coordinating Unit, Extension and Interpretation Unit, Deputy Director for Administration and Finance, Department of National Parks and Wildlife Management (DNPWLM), phones fax

1. Olivia Mufute, Ecologist

CAMPFIRE Association, phones 263-4-747-422, 429, 430, 457; fax 263-4-747-470; Mukuvisi Woodlands, Cnr Hillside Rd and Glenara Ave. South (P.O. Box 661, Harare)

1. Abraham Sithole, Second Vice Chairman (and Chairman, Chiredzi RDC);P.O. Box 128, Chiredzi (phone 263-131-2375 or 2547)
2. Taparendava N. Maveneke, Executive Director
3. Stephen Kasere, Deputy Director, Projects (direct phone 747-436)
4. Ngoni Wasarirevhu, Deputy Director, Finance and Administration

Africa Resources Trust (ART), phones 263-4-732-254, 735-497, 732-625; fax 731-719; 3 Allan Wilson Ave., Belgravia, Harare

1. Linda Mujakachi
2. Maxwell Gomera, Project Officer (gomera@art.org.zw)

IUCN (World Conservation Union), phones 263-4- fax

1. Yemi Katerere IUCN-ROSA

Multispecies Animal Production Systems Project, World Wide Fund for Nature (WWF), phone and fax 263-4-730-599 (P.O. Box 8437, Causeway, Harare)

1. David H. M. Cumming, Ecologist
2. Jonas Chafota
3. Tim Lynam, Economist
4. Ivan Bond, Economist

ZIMTRUST

1. Champion Chinhoye, General Manager, Institutional Management Unit

Ministry of Local Government and National Housing (MLGNH)

1. J. T. Mutamivi, Under Secretary
2. P. F. Duri, Principal Administrative Officer
3. J. Madzivanyika, Principal Administrative Officer
4. A. F. Mangena, Principal Administrative Officer

Malawi:

USAID

1. Kirt Toh, Mission Director, USAID/Lilongwe
2. David Himelfarb, Chief, A/NR Division
3. Steve Machira
4. Jim Dunn
5. Wayne McDonald

SADC Wildlife Coordinating Unit

1. Ramosh Jiah, Acting Deputy Director
2. John Mpande, Director (did not see)
3. Aisha Mtimkhulu, Administrative Officer
4. Komani Mwandamere, Librarian

NRMP Project Office

1. Steve Johnson

Wildlife Department

1. Tressa Mandaule

Department of National Parks and Wildlife, Ministry of Tourism and Wildlife; phones 265-723-566; fax 265-723-089 (P.O. Box 30131, Lilongwe 3)

1. Leonard Sefu, Acting Director, Management and Administration
2. Humphrey Nzima, Deputy Director (GTZ Coordinator), tel:782-702

Department of Forestry and Fisheries, Ministry of Environmental Affairs (TCUs)

1. Ken Nyasulu, Director of Forests
2. Mkoko, Director of Fisheries

TRAFFIC East/Southern Africa, phones 265-743-645 (direct), 265-723-676. -566 (department); fax 265-743-648 (direct), 265-723-089 (department) (P.O. Box 30131, Lilongwe 3)

1. Tom Milliken, Director

GTZ, phone 265-730-323, 265-733-287; fax 265-732-594

P.O. Box 31131, Lilongwe 10

1. Matthias Frhr. von Bechtolsheim, GTZ Advisor to DNPW (phone, fax 744-741)
2. Scholz, GTZ Advisor to Fisheries (did not see?)
3. Jennifer Graham, ex-PCV with Nyika project in Muzuzu, phone 335-202 (did not see)

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World Bank, phones 265-780-611; fax 265-781-158 (telex 44529 WORLDBK MI); P.O. Box 30557, Capital City, Lilongwe 3

1. Dr. Pickford K. Sibale, Agricultural Research Specialist
(psibale@ai@worldbank.org)

UNDP (Peter Kulemeka is in charge of Sustainable Livelihoods, which includes ENR; Flemming Nelson is another person in the ENR section))

1. Mrs. Etta M'mangisa, Environment and Natural Resources
(etta.mmangisa@undp.org)

Deloitte and Touche Public Accountants, phone 783-069, 732-525 (home); fax 782-276; Old Mutual House (P.O. Box 30364, Lilongwe)

1. John Bourke, Manager

Zambia:

USAID, phones 260-1-254-303, -304, -305, -306, -522; fax 260-1-254-532; 351 Independence Ave (P.O. Box 32481, Lusaka 10101)

USA mailing address: Lusaka (ID), Department of State, Washington DC 20521-2310

1. Walter North, Mission Director
2. David Soroko, Chief, Agriculture Development Office (dasoroko@usaid.gov)
3. Morse Nansengwa

Department of National Parks and Wildlife Services (DNPWS), Ministry of Tourism,

1. Gilson Kaweche, Deputy Director
2. Lewis Saiwana, Chief Wildlife Warden
3. Elvis Simbili, Accountant, Wildlife Conservation Revolving Fund
4. William Banda, Training Officer
5. Dale Lewis, Technical Advisor, Nyamaluma Research and Training Centre

National Cooperative Business Association (NCBA), Cooperative League of the USA (CLUSA), phone 235-747 (USA address: National Cooperative Business Center, 1401 New York Avenue NW, Suite 1100, Washington DC 20005-2160, phone 202-638-6222; fax 202-638-1374)

1. Ronald Phillips

Royal Norwegian Embassy (NORAD), phone 252-188; fax 253-915; telex NORAD ZA 40100; (Corner Birdcage Walk and Haile Selassie Ave (P.O. Box 34570, Lusaka)

1. Gudbrand Steve, Second Secretary, Agriculture

Delegation of the European Commission to Zambia (EC), European Union (EU), phones 260-1-250-711, 251-140; faxes 260-1-250-906, 252-336; telegrams DELECOMEUR; Plot 4899, Los Angeles Boulevard, Kabulonga (P.O. Box 34871, Lusaka)

1. Paulo Wandschneider, Economic Adviser (deczam@zamnet.zm)

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Kafue Anti-Poaching Company (KANTIPO), phone/fax 260-1-295-004; phone 260-1-291-377;
200A Ngwerere Road, Roma, Lusaka (P.O. Box 34089, Lusaka)

1. Yusuf Patel, Chairman
2. Stephan Sindern-Forster, Consultant to KANTIPO, ZELU Consulting

Wildlife Resource Monitoring Unit, phone 260-1-262-245

1. Hugo Jackmann, Consultant (jackmann@zamnet.zm)

People Attending RCSA CBNRM Assessment Round Table:

(RCSA Conference room, Gaborone, 22 June 1998)

Participants (13):

1. Ruud Jansen (Moderator), Country Representative for IUCN (Botswana)
2. Gary Naughton, Team Leader, CBNRM Assessment Team
3. Brian Jones, CBNRM Assessment Team
4. Art Hansen, CBNRM Assessment Team
5. Clyde K. Kiker, CBNRM Assessment Team
6. Sedie Modise, Director of DWNP (Botswana), direct phone 314-577
7. Malan Lindeque, Deputy Director of Department of Conservation, Division of Specialist Services, Ministry of Environment and Tourism (Namibia)
8. James Murombedzi, Ford Foundation (Johannesburg, South Africa)
9. Joe Matowanyika, ZERO (Zimbabwe)
10. Steve Johnson, SADC-NRMP (Malawi)
11. Yemi Keterere, Regional Director for IUCN-ROSA (Zimbabwe)
12. Richard Davies, North West Parks Board or Madikwe Game Reserve (Rustenburg, South Africa)
13. Roger Collinson, Consultant, ex-Director of Bophufhatswana National Parks (South Africa)

Observers (24):

1. Mrs. B. K. Molosiwa, Deputy Permanent Secretary, Ministry of Finance and Development Planning (Botswana), phone 350-288, Private Bag 008, Gaborone
2. Chandida Monyadzwe, DWNP (Botswana), Private Bag 131, Gaborone
3. Rosinah Masilo-Rakeidasi, DWNP (Botswana), Private Bag 131, Gaborone
4. Jan Broekhuis, DWNP, SWO-WWF (Botswana), P.O. Box 611, Gaborone
5. Raymond M. Kwerepe, Ministry of Agriculture (Botswana), Private Bag 003, Gaborone (brimp@info.bw), phone 267-350-511, fax 267-307-057
6. P. M. Mogotsi, Agricultural Resources Board (Botswana), Private Bag 003, Gaborone, fax 350-746
7. Felix Monggae, Kalahari Conservation Society (Botswana), P.O. Box 859, Gaborone
8. Stephen Cartwright, British High Commission, DFID (Botswana)

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9. Moses Samson, UNDP, NCS Agency (Botswana), Private Bag 0068, Gaborone
10. Mrs. Dicky Methorst de Bie, Director of Netherlands Development Organization (SNV, Botswana), P.O. Box 611, Gaborone, phone 352-913
11. Frank van Bussel, Program Officer, Netherlands Development Organization (SNV, Botswana)
12. Wendy Stickel, Deputy Director, USAID, RCSA (Botswana)
13. Donna Stauffer, Program Development Officer, USAID, RCSA
14. Al Merkel, Agriculture and Natural Resources Development Officer, USAID, RCSA
15. Elizabeth Soderstrom, Water Resources Advisor, USAID, RCSA
16. Maureen Shauket, Contract Officer, USAID, RCSA (Botswana)
17. Tekane Tekane, Project Development Officer, USAID, RCSA
18. Laurel Neme, USAID, Advisor to AFR/SD/SO5, IRG-FRAME (Vermont, USA), phone 802-655-1185 (laurelneme@aol.com)
19. Richard L. Smith, NRMP, Chemonics (Botswana) - phone 306-396, Gaborone
20. John Hazam, NRMP, Chemonics (Botswana), P.O. Box 2427, Gaborone
21. Joan Leavitt, NRMP, PACT-IRCE (Botswana), Private Bag 245, Gaborone (pact@info.bw), phone 314-75722. Pauline Wynter, NRMP, Chemonics (Botswana), P.O. Box 131, Gaborone (pw@megr.bw)
23. C. Gary Clark, NRMP (Botswana), P.O. Box 2427, Gaborone
24. Frederick O. Simon, U.S. Geological Survey (Reston VA, USA), phone 703-648-6055 (fsimon@usgs.gov)

ANNEX C

**Duty Schedule (Work Plan) CBNRM Assessment Team
(approved by Albert Merkel, COTR, 6/1/98)**

Date	Activity
Mon May 25:	Team departs USA for Gaborone, Botswana
Tue May 26:	Arrive at Gaborone 17:40
Wed May 27:	Introductory meetings at RCSA 14:00 >> Familiarization with TDY work room and reference materials, Review SOW w/ RCSA, assignment of key responsibilities to team.
Thu May 28:	At RCSA >> Introductory discussions of the assessment mission >> review documents >> re-draft work plan for discussion w/ RCSA >> Brian Jones arrives from Namibia
Fri May 29:	At RCSA >> Meet w/ SO-3 Team >> Document Review >> Adjust travel schedule >> establish e-mail linkage
Sat May 30:	Team meetings and revision of work plan >> clarification of individual assignments >> Reading background reports
Mon Jun 1:	Meeting w/ Dept of Wildlife >> Finalize work plan >> Team meeting
Tue Jun 2 :	Meeting w/ Chemonics, Botswana NRMP
Wed Jun 3:	Meeting w/ PACT >> Hansen & Kiker to Namibia
Thu Jun 4:	Meetings w/ other Botswana partners and PACT sub-grantees (Naughton & Jones) >> Meetings with USAID Namibia LIFE Project (Hansen & Kiker)
Fri Jun 5:	Meetings w/ other Botswana partners and PACT sub-grantees (Naughton & Jones) >> Meetings with Gov't of Namibia (Hansen & Kiker)
Sat Jun 6:	Travel to Harare, Zimbabwe (all)
Mon Jun 8:	Meetings w/ USAID/Harare

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- Tue Jun 9: Meetings in Harare w/ IUCN, ART, WWF, Univ of Zimbabwe >> Review evaluation of Zimbabwe NRM Project
- Wed Jun 10: Travel to Malawi (All)
- Thu Jun 11: Meet w/ SADC Wildlife unit and IUCN
- Fri Jun 12: Continuation in Malawi
- Sat Jun 13: Team splits (Hansen & Jones to Lusaka; Kiker & Naughton to Gaborone)
- Mon Jun 15: Meetings with USAID/Zambia(Hansen & Jones); meetings w/ Botswana partners (Kiker & Naughton)
- Tue Jun 16: Review ADMADE Project (Hansen & Jones); pre-draft writing (Kiker & Naughton)
- Wed Jun 17: Hansen & Jones return to Gaborone >> Team meeting
- Thu Jun 18: Team meetings and re-cap of travel findings >> Compile Info, review data >> Submit discussion paper for round-table
- Fri Jun 19: Continue round-table preparation >> focus on the future >> resource sustainability issues >> community needs issues >> implementation issues.
- Sat Jun 20: Team meeting >> reconciliation of issues and consolidation of approach to findings
- Mon Jun 22: Roundtable presentations, 0830-1230
- Tue Jun 23: Individual consultations (team members/RCSA staff) >> writing first draft
- Wed Jun 24: Writing first draft
- Thu Jun 25: Finish first draft, (to Merkel at 14:30)
- Fri Jun 26: Team edit of first draft of report to RCSA staff
- Sat Jun 27: Internal (team) review and critique of first draft >> refinement of Economic Analysis & findings & recommendations

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- Mon Jun 29: Continued review of documents for clarification of issues and improved understanding of potential solutions
- Tue Jun 30: Receive and review RCSA comments on first draft >> Begin preparation of Second draft report
- Wed Jul 1 : Re-write
- Thu Jul 2: Second Draft of report to RCSA by 16:00
- Fri Jul 3 : Team Meeting (internal evaluation of the job and final logistical and administrative details
- Sat Jul 4 : Team departs for USA

ANNEX D

SCOPE OF WORK
Assessment of Community-Based Natural Resources
Management in Southern Africa

Background

Southern Africa is one of the world's important biodiversity regions. Approximately 13 percent of the region, excluding South Africa, is made up of freshwater ecosystems. The diversity of plant species found in South Africa, Lesotho and Swaziland is eight times the world average, four times that of the United States, and double that of Brazil, when measured as the average number of plant species per 1,000 kilometers. Roughly three-quarters of the region supports tree cover. Despite the large and extensive protected areas network of the region, several ecologically important areas remain under-protected, including the mountain forests and lowland rain forests. Of special note is the fact that only about 5.5% of the land in Southern Africa is arable. This fact alone requires both sustainable management of natural resources and maximization of income from these areas to the people that live in them.

USAID, through SARP (Southern Africa Development Fund) and the RCSA (Regional Center for Southern Africa), funds programs supporting community based natural resources management (CBNRM). The Natural Resources Management Project (NRMP) started in 1989 with component activities² in Botswana, Zimbabwe, Zambia, and Namibia, plus a regional coordinating unit in Malawi, supports activities that should achieve the following results:

1. demonstrate, through practical examples, the technical, social, economic and ecological viability and replicability of CBNRM and utilization programs on marginal lands for increasing household and community incomes while sustaining natural resources; and
2. improve national and local capability to halt the decline in the wildlife, range, watershed, veld products, and biodiversity of the resource base through training, education, protection, communication and technology transfer.

Additionally, USAID/RCSA supports the Regional Networking and Capacity Building Initiative for Southern Africa (NETCAB) which began in 1995.

¹ These component activities have been funded and managed through the respective bilateral missions, with the exception of Botswana, whose management transferred to RCSA with the closure of the bilateral mission there and the regional coordination component based at the SADC Wildlife Unit in Malawi, which is managed by RCSA through a grant to IUCN.

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NETCAB develops governmental and non-governmental technical and networking capabilities in the region. This activity is carried out through a Cooperative Agreement with the World Conservation Union (IUCN) and involves NGOs from throughout the Southern African region as well as the World Resources Institute in the United States.

NRMP has funded efforts that demonstrate sustainable community based natural resource management for economic development and biodiversity. NRMP has improved the capabilities in each component country program to encourage protection and management of wildlife using institutional strengthening and community extension work.

NRMP support for the Zimbabwe Communal Areas Management Program for Indigenous Resources (CAMPFIRE) has expanded the program from 9,000 participating households to over 200,000. Overall revenues in the CAMPFIRE program have risen from \$60,000 in 1989 to \$1,500,000 in 1996. Aerial census data for the CAMPFIRE program confirm growing elephant population and fairly stable populations of other large mammals. CAMPFIRE has emerged as an African and a global model for sustainable natural resources-based community development.

In Botswana, the formation of 13 different community-based resource utilization activities, affecting more than 50 separate villages, has been collaborating in the drafting of management plans for 10 wildlife management areas and four national parks; the review of CBNRM policies by the Non-Governmental Organization (NGO) Task Force for Conservation in Botswana; the training of Department of Wildlife and National Parks personnel; and the strengthening of local CBNRM NGOs. On the ground, the Chobe area has seen a marked increase in elephant populations during the NRMP project period.

NRMP support for Zambia's ADMADE program has assisted with the establishment of a new wildlife policy and legislation which conferred natural resource ownership to local communities; strengthened the institutional capacity of National Parks and Wildlife Service (NPWS) to administer ADMADE; strengthened the technical and research management capability of NPWS; and expanded the Nyamaluma Research and Training Center to include training for community leaders in sustainable NRM as well as local village scouts. Wildlife census data maintained at the Nyamaluma Training Center indicates increasing wildlife populations especially in the ADMADE game management areas near South Luangwa.

In Namibia, NRMP supported the Living in a Finite Environment (LIFE) program. Major achievements of NRMP are enactment of an amendment to the Nature Conservation Ordinance (the Conservation Act), formation of community institutions such as conservancy committees, community game guards and community resource monitors in three targeted areas.

Community game guards have reduced poaching of all animals, including elephant, in target areas. Work with local women's groups resulted in sustainable harvesting of reeds and long grasses used for building and roofing thatch while generating income for these women.

Funding provided to the SADC Government of Malawi Sector Coordinating Unit, supported with a grant to IUCN, supports regular regional participant conferences, peer exchange visits, and coordination meetings where important lessons have been shared about the philosophies, principles, practices and approaches of CBNRM. Examples of such lessons include the effective use of village income under CBNRM, techniques for auctioning safari concessions, and guidelines from joint ventures between communities and the private sector.

When the Regional NRM Project was initiated, CBNRM was still in its infancy. CBNRM faced legal, administrative, and technical problems. Fostering successful CBNRM development throughout the region depended upon a better understanding of the issues, conflicts, and expected results from CBNRM. NRMP has demonstrated, through practical examples, that CBNRM programs work on marginal lands to generate income for a community and sustain the natural resource base. In spite of the different management approaches to CBNRM which have emerged in the region, NRMP has demonstrated that several common factors are necessary for a successful sustainable natural resource management program.

As NRMP enters its final two years of implementation, two general models of CBNRM implementation have emerged in the component countries³. In two of the four component countries, the national legislation and NRMP support have led to what one could call a “CBNRM enterprise” approach. In both of these countries, the communities register as legal entities, either as a trust or as a conservancy, which assume full responsibility and risk for the utilization of a geographically defined management area. The communities are responsible for identifying markets, determining the feasibility of products or services, mobilizing required capital, and the operation of a “sustainable” NRM business. As legal owners of the assets, communities under the enterprise approach have the option to operate active or passive businesses: e.g., they can run their own harvesting or eco-tourism programs, or they can act as landlords by leasing out the assets to private sector investors.

In the other two component countries, the NRMP programs have taken more of a “revenue authority or local government” approach. The communities are entitled to

³ Since the programs in all four component countries are still evolving and variations exist within the component countries, the word general has to be taken literally when categorizing the programs into the two classifications of enterprise and local government.

revenue from the assets even though they are not active or even passive owners or a sustainable natural resource business. Ownership of the natural resources in these communal programs is entrusted to administrative governmental-type units which are responsible for wildlife utilization in a defined game management area or district.

Concessions, primarily safari hunting, are tendered out to private operators by the representative administrative unit, or by the State, which passes a portion of the profits down a hierarchal structure to village communities. These programs take on more of a local tax district or revenue authority sharing model where residents share in the benefits from the license fees and offtake attributable to their districts and wards.

Definition of CBNRM

There is no universally accepted definition of CBNRM. But experience has shown that when communities intimately involved with the natural resources become involved with the management of natural resources and profit from the better use of the resource, then sustainable productivity is enhanced. African CBNRM projects have taken different approaches to managing natural areas. In NRMP project in Southern Africa, most activities are based on returns from wildlife hunting and augmented by income from tourism and gathering of natural products. In Lesotho, CBNRM methods are used in range management. Senegal, Mali , Niger and other countries are using CBNRM schemes in forestry and agroforestry. Malawi is using CBNRM for production of high value crops. CBNRM occurs outside of projects as well. Using applied technology has led to innovation in CBNRM following the leads of project supported activities. This illustrates that the range of "CBNRM" activities is wide and varied.

Experiences under the Southern African NRMP approaches and other participatory natural resource projects implemented in Africa⁴, have led to a better understanding of key ingredients necessary for any CBNRM program to work. Irrespective of the approach taken, "enterprise", "local government", or some variation thereof, successful CBNRM programs need⁵:

- * access to and exclusive tenure rights to land and/or its natural resource base,
- * strong local community organizational structures and capacity to manage communal natural resources and benefits,

³ de Beer, Geoff, et al., "Tourism Development and the Empowerment of Local Communities." **The Southern Africa Spatial Development Initiatives Program, Development Bank of Southern Africa, August 1997.**

⁴ Attached find an e-mail from Mr. Karl Hess with a discussion on sustainability of CBNRM. This paper is for reference only to be used by the Team as they feel is appropriate.

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- * well defined natural resource standards with monitoring and enforcement programs,
- * functioning private sector oriented to utilization of natural resources based products, and
- * understanding of the natural resource base that the communities are managing.

With eight years of NRMP experience and the lessons learned, the RCSA needs to review the status of the existing country programs and develop a strategy for a follow-on program.

Regional development in Southern Africa is supported by the RCSA mandate, to improve the quality of life of all of its people and to participate as a stable, prosperous region in the global economy. The RCSA recently developed new strategy, Regional Integration through Partnership and Participation. The strategy identifies the role of RCSA to provide support to regional initiatives that tie the Southern African community to common approaches to resolving problems and integrated development. As part of this strategy, two strategic objectives were developed to address key issues surrounding natural resource management in the region. The SOs were forged out of a continuous dialogue with Southern African partners, analysis of issues and opportunities, and linkage with USAID's Agency wide goals and US national interests. The Mission's two strategic objectives are:

Strategic Objective Three: Accelerated regional adoption of sustainable agriculture and natural resource management approaches, sprang out of a realization that the region faces an enormous challenge -- balancing the need to conserve its rich but fragile natural resource base as an economic asset for future generations, with the immediate need to feed and provide jobs for a rapidly growing population. It envisions that if the natural resource base is maintained or improved as a productive asset, if the resources are used to their full economic and ecological values, and if agricultural productivity is increased, agriculture and natural resources can and will generate sufficient food and income on a sustainable basis to improve living standards for the people of the region, particularly rural disadvantaged. This will be possible if there are well-functioning, self-sustaining systems to transfer appropriate AG/NRMP technologies and best practices in the region (among communities and organizations); if there are compelling incentives for small holders and communities to adopt sustainable technologies and approaches; and if there is improved infrastructure to move goods and people and in order to provide inputs and access to markets.

Special Objective A, Increased Regional Capacity to Manage Transboundary Natural Resources, evolved out of the recognition that transboundary resources, such as wildlife, water, transboundary parks and associated ecosystems, present a target of opportunity for USAID to help Southern Africa address an area of potential regional conflict and build on its excellent record of setting aside areas for conservation and support regional resource management planning. The development challenge is to balance the complex and often contradictory demands for transboundary resources. It envisions that countries shall define their own management plans in consultation with each other and make claims that are in accord with available resources from shared sources. Further, it shall treat these resources, not in isolation but as part of integrated resources which merge management programs with the many needs of human settlements.

This is a special objective because of USAID's limited experience in the sector, but its strong comparative advantage due to the regional nature of the Mission and the problem.

Following the establishment of the SO3 Results Framework, a concept paper was drafted on CBNRM for the RCSA in September 1997. The paper outlines illustrative results and activities under SO3, a design schedule and management plan, as well as proposed analyses and assessments to be conducted as part of a CBNRM follow-on.

Annexed to this SOW are complete copies of the SO3 and SpOA.

Purpose of the Assessment

The purpose of this assessment is to:

1. Inform USAID, particularly the Africa Bureau and RCSA, of the potential for future involvement by the RCSA in CBNRM. The contribution CBNRM has made and the potential for future conservation of important natural resources and economic growth among rural populations must be assessed. The assessment shall take a broad look at CBNRM programs in the region funded by USAID as well as other sources. All USAID Southern Africa-funded projects, ADMADE, LIFE, CAMPFIRE and the Botswana NRMP component have all been evaluated within the past 18 months. The Team shall utilize these evaluations to assess the status of each of the country programs results for sustainability and which elements may continue to be supported. The assessment shall provide guidance on the way forward for the RCSA's involvement in CBNRM beyond 1999.
2. Provide information that will assist USAID in quantifying the impacts and sustainability of CBNRM in Southern Africa. The effect of CBNRM activities on the Quality of Life in participating communities and better conservation of the resources are important considerations for future design of activities.

Additional results (both positive and negative) that are not clearly presented in USAID Southern Africa-funded activity reports but are considered important by the Assessment Team to be important shall be described and quantified as well. Other players' activities (donors, NGOs and governments) shall be described as well.

3. To a lesser extent, assist the RCSA, AFR/SD, and the regional partners in identifying design issues and important considerations that need to be addressed in a design of a regional follow-on project of CBNRM. This is a minor part of the assessment and should receive attention as information and conclusions become evident to the Team.

Gender information is important. The Team shall describe all activities that specifically relate to women or where women have particular advantage and activities that provide assistance to disadvantaged groups. Where ever possible gender desegregated information shall be included in the final reports.

Scope of Work

Team Chief of Party (COP) shall be responsible for providing the final, unified report covering the separate questions below. The COP shall assign responsibilities to team members as fit their expertise and experience.

1. Document the state-of-the-art of CBNRM as it is practiced throughout the region in USAID NRMP activities as well as activities of other donors or national structures. Certain conditions are necessary for CBNRM to take effect and be sustainable. Important enabling conditions include networking, information/technology sharing, and policy frameworks in place. The analysis shall determine what policies and other important conditions have helped CBNRM move toward sustainability and which have been constraints for the programs to operate in each country. Some things that are considered to be important enabling enhancements are: appropriate policies; capacity building, both local and national; tenure rights; technical skills; inventories of the natural resource base; communications; and PVO competence.

2. Each country or activity has had a different mode of implementation. These shall be documented, particularly in terms of the length of time in operation and level of intensity of technical assistance and progress toward sustainability of the two results in paragraph two of the Background section of this SOW. Most of this information is included in the recently completed project evaluations. The team will suggest methods that could be used to document measures of progress in CBNRM over time for use in future CBNRM activities.

3. Characterize CBNRM in terms of its spread and potential sustainability based on such variables as climate, land type/cover, land tenure, social structures, and policy frameworks and economic impact.

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This information is available in various reports on NRMP projects as well as in the project evaluations. The available information can be augmented during interviews with the CBNRM practitioners met during visits to the region by the Contractor. The analysis shall catalogue, to the extent possible, CBNRM approaches by key characteristics using as a guide those different approaches described in the draft CBNRM concept paper, done in September 1997, for a new design and the pre-conference paper for Beyond the Tragedy of the Commons Conference held in Kasane in 1995 as points of departure. These papers are available in the RCSA Office.

4. The physical and socio-economic characteristics of the programs that are ongoing shall be determined. The Contractor shall ascertain generally which areas contain similar characteristics so that an understanding may be achieved of the potential of CBNRM in Southern Africa. This determination shall be conducted using interviews with regional country practitioners among others.

5. Review literature and contact key experts among NGOs, CBNRM practitioners, government, and academia, to identify broad biophysical trends which have been or are being affected by CBNRM. Classify these trends in terms of effect on the natural resource base. From available documents and interviews describe the current state of knowledge on the impacts of CBNRM in the region. Recognizing that such information is incomplete, develop an approach to document these trends during the continuation of RCSA's activities in CBNRM. The approach should include informational tools to collect, manage, analyze, and disseminate information about CBNRM.

6. Using existing data available in NRMP programs in the region, determine an estimated value for CBNRM, both in direct terms and linkages to the local (perhaps household) and regional economy by identifying potential economically significant resources to the extent possible. Describe how other income sources such as tourism do or can contribute to the people involved in CBNRM. Provide a depiction of how CBNRM optimize resource (or land) management in terms of benefits to households, and communities, and how this affects national accounts. Determine the estimated value from CBNRM in terms of income flows, risk reduction, and resource optimization using data available in project reports and evaluations. Similarly, determine implied values based on traditional, religious, or social mores. Identify key development needs stemming from this analysis which indicate the economic, social significance, and sustainability of CBNRM. Identify requirements for further analysis on these areas required for USAID RCSA follow on CBNRM programs. In providing information on income, any significant local CBNRM propagated enterprises will be described.

7. Describe a draft hypothetical analytical framework upon which CBNRM depends. Outline the framework's key enabling conditions, their sequencing, inter-relationships, and relationships to achieving strategic results.

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Review existing project documents to determine the hypotheses inherent in the design these activities. This framework may take several forms: it may address CBNRM as interventions in a utilization system; it may look at anticipated impacts upon key trends, such as benefit flows and degradation, or it may look at impacts of various elements in a matrix of social organization (e.g., policy, technology, and information by household, community, sub-national regions, and national levels of organization). Whatever choice of analytical framework is arrived at, the framework would serve as a key design element in the NRMP follow-on for the RCSA. This draft framework will be a key element in determining the enabling conditions of CBNRM for this assessment. The Draft framework will then serve as a base to be refined during the design of a follow on project should one be required.

8. Consider CBNRM in a regional, bilateral and non-presence context, how effective have approaches of CBNRM been transferred and are clients' needs being served in each context.

In addressing the issue of regionality, describe the connection between field testing of approaches within a national or sub-regional framework and application of the lessons learned within the regional framework of Southern African CBNRM Partners (NRMP Regional Project). To the extent possible, determine how sustainable are the USAID supported interventions in CBNRM at this time.

9. Estimate the activities that will be required and the time necessary to take CBNRM to sustainability and to a point where USAID Southern Africa might be able to withdraw from direct support to developing CBNRM management systems and enabling frameworks. At this point, CBNRM groups will understand their role and management requirements, and be able to have sufficient income to operate from year to year. What more must be done to ensure sustainability of CBNRM in Southern Africa?

Suggested approaches for the assessment

Broad guidelines for the approach to be followed shall include:

1. Initiate the activity with a review of USAID and other donor funded activities in the Southern Africa region. Additional information from other regions may be brought into the analysis based on the analysts' own experience. It should be noted that LIFE, ADMADE, CAMPFIRE, Botswana NRMP have all conducted evaluations within the past 18 months and that the Regional Natural Resources Management Project has a considerable bibliography of documents which shall aid in the analysis. The assessment team shall utilize studies, analyses, evaluation and Results Report and Resource Request (R4) reports proposed during the implementation of bilateral USAID Southern Africa CBNRM activities in Namibia, Botswana, Zimbabwe, Zambia, and Malawi as source data for their assessment.

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RCSA suggests that the team also use an Internet search to be able to get other relevant CBNRM parallels for the study.

2. Though it is not intended that detailed field analysis based on observing and assessing actual field work will be undertaken, the analytical team shall supplement data available in written documents with interviews of practitioners involved in CBNRM throughout the region and become familiar with the approaches used and the method of analyzing impacts of the programs. The Team shall advise on what data are lacking and provide recommendations for additional analysis needed for a new project design.
3. The analysis of CBNRM shall be holistic in nature. It shall consider how CBNRM can lead to optimal land uses and conservation of biodiversity among competing demands. It shall identify priority environmental concerns of the Region and assess how CBNRM activities are addressing these priorities.
4. The economic analysis shall quantify, to the extent possible, the values that accrue to the people participating in CBNRM, both cash and other non-market values. To the level possible, the value of CBNRM to the participating country shall be addressed.
5. During the middle phases of USAID Southern Africa's experience in establishing CBNRM, considerable discussion and emphasis was placed on determining and creating a policy environment appropriate for community management of natural resources. The team shall detail key policy issues and policy gains made under the various CBNRM activities. Effort to identify policies needs which have a regional nature and advise on how the RCSA should address policy environment or spark a policy dialogue, particularly in the context of the SADC region, is an important part of the assessment.
6. As experience in CBNRM increases, it becomes apparent that the need for information and technical assistance are important, key constraints in empowering communities to effectively manage their resources. The team shall consider the requirements of information, including effective monitoring and evaluation of the natural resource base and the communities management of that base. The kinds and timing of technical assistance interventions are important considerations. Guidance on what and how these needs could be met are important information for designing future CBNRM activities and programs. They shall be discussed in the final report.
7. The analysis shall be forward-looking. Although it builds upon past experiences, it shall capture future trends and define a role that CBNRM can play, particularly in achieving Agency goals, Mission objectives, and priority needs of the region. At the same time, the analysis shall help define a regional role for the RCSA in future natural resource management, especially CBNRM.

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This role could address partnership with other donors, agencies and operating units in countries having a bilateral presence as well as non-presence countries.

The assessment information collection shall be augmented by meetings with customers, partners, and other key players in CBNRM as appropriate. Field trips to sites are encouraged. It is expected that the team shall split activities so that a maximum exposure to the region and the CBNRM activities can be accomplished. The Team's responsibilities shall be listed in the work plan submitted by the Team leader during the first work week. The SO Team will advise the Team leader with these assignments.

Skills required

This team will be supported by RCSA Project Officers and staff from missions and relevant operating units of the Agency as necessary.

All experts shall have required experience equivalent to Level 4 of the IQC contract.

This shall include as a minimum at least five years of professional experience in community based development programs, plus demonstrated strong analytic and writing skills. An ability to work independently in a developing country context and with multi-disciplinary teams is essential. Experience with CBNRM or community management of other natural resources such as forestry programs and familiarity with natural resource management issues and programs, especially in Southern Africa, is highly desirable. At a minimum, the team shall consist of persons possessing the following expertise:

Agriculture Economist (Natural Resources) (Level 4) with extensive experience in natural resource management activities. He/she shall have experience evaluating the aggregate value of significant natural resources as well as providing analyses of optimal uses for resource allocations/exploitation. A background in environmental economics and understanding markets for regional natural resource products important. The individual shall have practical experience as well as research in social dynamics of resource utilization, resource tenure structures, and common property issues.

Environmental Specialist (Natural Resource Management) (Level 4), who would also act as Chief of Party (COP) for the analysis team. The specialist shall have extensive experience in the establishment of processes and understanding of new techniques such as "landscape management" versus more conventional management of specific fauna and flora. The individual shall also be able to identify locally valuable resources and track their uses and processing, as well as those resources with wider market value, particularly non-traditional resources. The Team Leader shall direct the overall effort and provide synthesis to the analysis and be ultimately responsible for preparation of the final report.

Environmental Specialist (Level 4). This person shall have extensive experience with community based natural resource management systems in Africa. The specialist will have experience in Southern Africa. This person will work closely with the Social Scientist to determine the role of rural people in CBNRM and how sustainability is obtained.

Resource Persons. The RCSA may contract with regional experts who would not be part of the analytical team, but whose time would be paid for in order to provide input to the analysis and peer review of products. AFR/SD will participate both with virtual presence as well as two visits to the region to participate in discussion and reviews of the assessment and its findings. Resource persons assistance will occur on an ad hoc basis and length of time or schedule may vary depending upon the assistance necessary and the availability of the people. It is planned that during the period of the assessment, a regional roundtable of regional CBNRM experts shall discuss the preliminary findings of the Team. This roundtable will be coordinated by the SO-3 Team and RCSA regional partners. No cost to the IQC work order, except time of the Assessment Team, shall be included to support the round table.

Management Relationships. The contractor and the Assessment Team will coordinate all technical activities with the Contracting Officer's Technical Representative (COTR). In matters pertaining to non-technical concerns, the Contractor will communicate directly with the Contracting Officer. The COTR will be named by the Contracting Officer in the work order for this assessment.

Logistic Support. The Team will be authorized to use a TDY room in the USAID/RCSA Building. Equipment will include computers, access to copiers, and printers. The ADNR office will provide assistance in making contacts, arranging meetings, providing reports and other information. If available, accommodations at the USAID Guest House will be provided for the team. Use of one rental car is authorized for Gaborone, Botswana.

Timing and Level of Effort. The activity shall start in May and extend for a period of six weeks (36 working days based on a six-day work week). An additional 3 working days for the COP shall be required to undertake final report writing based on the final review after the team leaves. Attached is an Illustrative Work Plan for more information on the timing and potential travel of the Team.

Deliverables

1. Within five working days after arrival, the Team Leader shall deliver to the SO-3 Team a work plan detailing the activities to be accomplished during the assessment. These shall include as a minimum: regional travel; major meetings and contacts; timing of presentation of reports, briefings, etc.; major assignments of the assessment team; and other required support or inputs from RCSA.

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2. A briefing paper with preliminary findings to be used as a discussion paper for the round table discussion. This shall be done at least one day prior to the round table meeting.
3. A first draft of the assessment report a minimum of five days prior to the team day of departure. This shall allow the RCOSA and others to have four days to review and provide feed back and comments on the draft. One day shall be allowed for revisions to the first draft.
4. On or before the last day in country, the Team shall submit a second draft of the report to RCOSA for final review by the major partners in the region and AFR Bureau. RCOSA shall have 30 working days to provide further comments on the assessment to the Contractor.
5. The COP shall be allowed three working days after receipt of the final comments to address and revise as required the final draft of the report. The Contractor shall provide RCOSA SO-3 Team COTR a copy of the final draft for review. The COTR will notify the Contractor of acceptance or further revisions if required to meet the final comments submitted earlier.
6. After receiving final acceptance from the COTR, the Contractor shall then prepare the final report, fully edited with appropriate report format, and provide ten (10) bound copies and one unbound original within fifteen (15) days after receipt of acceptance by the COTR. Additionally, one electronic copy in WordPerfect Ver. 5.1 shall be included on a 3.5 inch HD floppy disk formatted for Windows. The reports shall be sent by international express to USAID/RCOSA, Plot No. 14818 Lebatlane Road, Gaborone West, Extension 6, Gaborone, Botswana, Southern Africa, Attn. Strategic Objective Team 3.

Final Report Outline

The final report shall not exceed 35 pages. The final report shall be presented with the following major headings:

1. Summary of Findings. These findings shall be major findings and not be lists of minor parts of major findings. Recommendations shall be coupled with findings.
2. Discussion of methodology used.
3. Full discussion of findings and recommendations. The report shall include discussion of gender related activities that are now being implemented by the several projects and make recommendations for how women and other groups could be assisted in future CBNRM activities.

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4. Lessons Learned. In this section, general discussion of sustainability of CBNRM, best practices observed, and technology transfer mechanisms shall be discussed.
5. Recommendations for follow-on activities for the USAID Southern Africa regional CBNRM and NRMP activities shall be discussed.
6. Annexes as required, e.g., hypothetical analytical framework, work plan, people involved, etc.