

**PRINCIPLES, CRITERIA AND INDICATORS FOR SUSTAINABILITY OF
COMMUNITY-BASED NATURAL RESOURCE MANAGEMENT
PROGRAMMES IN SOUTHERN AFRICA**

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Foreword

This Guide was commissioned by IUCNROSA to enable Community based natural resources management programme practitioners, managers and communities to objectively document and disseminate best practices for sharing of experiences. It is IUCNROSA' hope that increased knowledge and awareness of available CBNRM best practices will in the long term improve designs of new CBNRM programmes, and adaptive modification of existing ones. This should ultimately lead to more effective implementation of CBNRM programmes and sustainable natural resources management given the important role of Community involvement in most natural resources management initiatives in southern Africa. Since the emergence of CBNRM as a new approach to sustainable natural resources management in the 1980s, CBNRM has been adopted as an important approach for achieving sustainable natural resources management. The 1980s and 1990s can be regarded as having been a period of a learning process which is far from over as new challenges to CBNRM approaches continue to emerge as the concept gets applied to more and more resources under different environmental, socio-economic and cultural conditions.

Over the years, many valuable lessons have been learnt from both failures and successes by different programmes implementing CBNRM. These lessons have largely not been shared in the region and beyond and as such have not benefited on-going CBNRM programmes and the design of new ones. One of the reasons for the lack of effective sharing of lessons is that many organizations involved in CBNRM programmes are too busy with implementation and have had no time nor an objective framework for doing so. Consequently, to date, very little sharing of lessons from each other takes place. Any such attempts are largely in the form of exchange visits, which are generally costly and lack a basis for focused exchange visit objectives. This guide of sustainability principles, criteria and indicators developed through case studies undertaken in the region provides a detailed framework for systematic and objective identification and documentation of lessons and experiences in CBNRM. The idea behind the guide is to present to CBNRM practitioners, managers, communities and policy makers a holistic sustainability yardstick for CBNRM programmes that integrates ecological, economic and social sustainability.

Acronyms

CBNRM	-	Community Based Natural Resources Management
CBO	-	Community Based Organization
IUCN-ROSA	-	The World Conservation Union Regional Office for Southern Africa
NETCAB	-	Networking and Capacity Building Project
NGO	-	Non-governmental Organization
USAID	-	United States Agency for International Development

PURPOSE OF THE FRAMEWORK OF PRINCIPLES, CRITERIA AND INDICATORS

The NETCAB CBNRM best practices programme was initiated to increase awareness and share experiences on CBNRM programmes in the region through documentation and dissemination of best practices from on-going CBNRM programmes. In order to systematically and scientifically identify and document the best practices from on-going programmes, a framework of ecological, economic and social / institutional sustainability principles, generic criteria and indicators was developed. The purpose of the framework is basically to be used as a standard tool for the identification of best practices and lessons through some rapid appraisal processes. The framework is also useful in other related activities of CBNRM design, implementation, monitoring and evaluation.

The framework development process and approach

The framework was developed through vigorous and consultative processes, which started with a regional workshop that listed existing sets of principles of sustainability in different formats and contexts. These were then tested and verified using three case studies on fisheries, forestry and wildlife-based CBNRM programmes in Malawi, Zambia and Zimbabwe respectively. The case studies also developed generic criteria and indicators for each tested and verified principle using on the ground practices in the operations of the three on-going programmes. The results of the case studies were then reviewed in a regional workshop of CBNRM practitioners and researchers before being validated by the local communities involved in the three case studies through report back workshops.

The Sustainability principles

The following section lists the full set of ecological, economic and social/Institutional principles developed.

Ecological principles

1. *Any utilisation of natural resources that entails off-takes should maintain the biological viability of harvested species*
2. *Utilisation regimes should maintain or improve the quality and diversity of habitats*
3. *CBNRM activities and practices should be based on communities' indigenous knowledge, which should be complemented by "hard science"*
4. *Protocols for monitoring the status of natural resources and the effectiveness of natural resource management, should be locally based, designed and implemented by the local communities*
5. *Environmental policy and legislation should effectively promote conservation and environmental management at local level*

Economic principles

6. *The productivity and consumption of the natural resource should be optimised*
7. *Benefits should exceed the costs of conservation to the communities*
8. *Community-based natural resource management should incorporate and facilitate the development of diverse natural resources-based enterprises*
9. *Communities involved in natural resources management should be the primary beneficiaries from the natural resources*
10. *Community economic development initiatives through state-assisted and private sector partnerships should be promoted*
11. *User groups benefiting from the resource should invest in the maintenance of the resource base*

Social / Institutional principles

12. *Natural resource management institutions at the local level must be participatory and accountable to the people*
13. *Authorities at higher levels of government must have the political will to decentralise and devolve power and functions to local level institutions*
14. *Communities must legally own or have legitimate access and control over natural resources and their management through appropriate legal and policy frameworks*
15. *There should be effective institutional co-ordination and co-operation to reduce conflict among natural resource management institutions*
16. *There should be graduated sanctions against transgression of commonly accepted rules and regulations governing the management of natural resources*
17. *There must be social equality in the flow of benefits, which should reflect the differential cost of management*
18. *Communities should tap into available training opportunities with government agencies and non-governmental organisations to enhance the communities' awareness and natural resources management capacity*

CRITERIA AND INDICATORS FOR EACH PRINCIPLE

Using the principles listed above, sets of criteria and several generic indicators for direct assessment of sustainability for each principle were developed. These are not exhaustive and specific situations may require development of case specific criteria and indicators when necessary.

ECOLOGICAL SUSTAINABILITY CRITERIA AND INDICATORS

Any successful community-based natural resource management regime should ensure that the natural resource is being managed on a sustainable basis. This is important so that the exploitation of the natural resource does not result in degradation and thereby negatively affecting the livelihoods of the community dependent on the resource. Therefore, for ecological sustainability of a CBNRM programme to be achieved, a number of principles, criteria and indicators should be in practice.

Criteria and indicators for Principle 1: Any utilisation of natural resources that entails off-take should maintain the biological viability of harvested species.

Explanatory notes

Approaches that discourage waste should be incorporated into management plans. In any given ecosystem it is likely that only relatively few of the available species will be used. It is in the interest of the community to maintain the characteristics of both the species and ecosystem in order for the ecosystem to continue to provide the products and services sustaining a community.

CBNRM activities therefore must be based on conservation of resources through generation of significant benefits for communities resulting from rational use of the same resources. Communities should, therefore, be interested in participating in efforts that seek to enhance the natural resource base. It, therefore, follows that if a community is using resources, the off-take strategy should not detrimentally affect the genetic and ethnographic characteristics of the species being used because it is important that the biological viability of the species is maintained. Further, the harvesting strategy should be based on quotas set by a competent body with the active participation of the community that depends more directly on the natural resource.

Criterion 1: Genetic and ethnographic characteristics maintained

Indicators:

- a) Number of known species stable in number and composition
- b) Spatial and temporal distribution of species stable

Criterion 2: Sizes of species populations known

Indicators:

- a) Limit of harvest quotas known
- b) Threatened species not harvested
- c) Minimised harvest of young individuals of populations to allow regeneration

Criterion 3: Species diversity is maintained

Indicators:

- a) Number of economic species maintained in resource area
- b) Percentage of rare species observed
- c) Number of known species stable in number and composition

Criteria and indicators for Principle 2: Utilisation regimes should maintain or improve the quality and diversity of habitats.

Explanatory notes

Natural resource use by its nature is selective as not all species of a particular resource are of direct use value. However, all species are important for the maintenance of the habitat or ecosystem. It is therefore important that scientifically determined quotas for each species are harvested while maintaining the ecologically sustainable populations. Overexploitation of selected species has been a major cause of habitat destruction and species decline in many instances. It therefore follows that use of certain species should not compromise the integrity and quality of the ecosystem and habitat as a whole. Maintaining and improving the habitat should be a central component of natural resource

utilization and conservation. Where possible, diversification in the use of the natural resource base should be encouraged and alternative sources of the resource sought and utilised.

Criterion 1: Habitat diversity is maintained

Indicators:

- a) Habitat and resource degradation are minimised
- b) Number of alien invasive species
- c) Number of persons sanctioned for failing to comply with resource management rules
- d) Magnitude of illegal harvests from protected areas

Criterion 2: Minimal environmental pollution

Indicators:

- a) Instances of pollution affecting natural resources
- b) Instances of indiscriminate veld fires

Criteria and Indicators for Principle 3: *CBNRM activities and practices should be based on communities' indigenous knowledge, complemented by "hard science".*

Explanatory notes

Local communities living near or around natural resources have over the years built a wealth of knowledge and information on the nature, management and uses of such resources. CBNRM initiatives need to recognise this wealth of knowledge and tap it in developing natural resources conservation and management strategies. Such traditional knowledge should compliment scientific knowledge. As such environmental education and awareness raising at community level should precede natural resources management, utilisation and conservation initiatives. This however can only be meaningful if it incorporates and complement existing knowledge systems rather than emphasizing only 'external' or 'scientific' knowledge without due regard to the wealthy of indigenous technical knowledge.

Criterion 1: Indigenous and technical knowledge of natural resource use is encouraged

Indicators:

- a) Traditional leaders advise local level management institutions
- b) Training programmes for resource management institutions at local level exist
- c) Training programmes have modules in indigenous knowledge systems

Criterion 2: Existence of mechanisms for passing on indigenous knowledge through generations

Indicators:

- a) Informal means of knowledge transfer arrangements from elders to children in the communities
- b) Number of young persons belonging to local level management institutions

Criterion 3: There is collaboration between local communities, non-governmental organisations and government agencies responsible for management of the natural resource.

Indicators:

- a) Capacity building programs organised jointly by governmental and non-governmental agencies
- b) Enforcement jointly carried out by government agencies and local communities
- c) Study tours jointly organised by local communities and governmental and non-governmental institutions
- d) Communities are sensitised on international concerns about their natural resource
- e) Number of community members participating in the setting of off-take quotas

Criteria and Indicators for Principle 4: *Protocols for monitoring the status of natural resources and the effectiveness of natural resource management, should be locally based, designed and implemented by the local communities*

Explanatory notes

CBNRM initiatives depend on participatory approaches involving all stakeholders and monitoring of natural resources use and status is very important for effective adaptive management of the natural resources. The sustainability of monitoring depends largely on having monitoring strategies and frameworks that are community based and driven. This is particularly important as communities are the major stakeholders of natural resources in their areas and as such better placed to undertake monitoring.

Therefore, the foundation of ecological monitoring systems should be participatory and community based. Monitoring systems, including the indicators, must therefore be designed and implemented by the resource users as an integral part of their own resource management strategy.

Criterion: Communities develop resource management and ecological monitoring mechanisms

Indicators:

- a) Number of community-formulated monitoring mechanisms for resource monitoring
- b) Number of local people involved in monitoring species populations

Criteria and Indicators for Principle 5: *Environmental policy and legislation should effectively promote conservation and environmental management at local level.*

Explanatory notes

The success of natural resources conservation depends largely on legislation and policy frameworks. Policies are particularly critical as they directly and indirectly influence natural resources conservation and management practices. Cross-sectoral policies may even have more serious implications on other resources. For effective running of CBNRM, there is need for a legislative and policy framework that provide legal status of CBNRM programmes. National policies and strategies on conservation are often outside the realm of the local communities' influence. Although national policies are usually made for the national good, they can be at variance with local level interests, thereby creating conditions for conflict. National policies should therefore be informed by practices at the local level in order to be realistic and effective for CBNRM programmes.

Criterion: CBNRM is supported at national level

Indicators:

- a) Role of traditional leadership in sanctioning transgressions is legally institutionalised
- b) CBNRM policies and strategies in place and supported by government
- c) Publicity measures of CBNRM policies and strategies
- d) Number of government agencies implementing CBNRM policies and strategies

ECONOMIC SUSTAINABILITY CRITERIA AND INDICATORS

Economic sustainability places emphasis on resource growth; efficiency in utilisation and equitable distribution of gains leading towards maximisation of community welfare by the local community within constraints inherent to the resource base. This implies that gains have to clearly outweigh costs of exploitation by a visible margin to stakeholders and accruing benefits are in turn shared taking equity into account.

Incentives to efficiently manage the resource or to comply with set CBNRMs must be adequate and apparent to the communities. Improvements in rural incomes and enhancement of food security among communities covered by the CBNRM are some of the indications of economic sustainability that ought to be promoted.

Criteria and Indicators for Principle 6: *Productivity and consumption of the natural resource should be optimised*

Dealing with renewable natural resources requires effective management arrangements to avoid resource depletion. It is imperative, therefore, that we optimize both resource productivity and consumption. Optimal utilization is therefore vital for sustainable natural resources management and improved community livelihoods

Criterion 1: Illegal off-take is curtailed

Indicators:

- a) Number of community members involved in enforcement of rules and regulations of resource management
- b) Number of people fined for transgression
- c) Catch per effort index from law enforcement measures
- d) Number of offences related to illegal off-take

Criterion 2: Limited external subsidisation

Indicators:

- a) CBNRM revenue generated and the percentage share of the revenues utilised
- b) Amounts of grants made available to the CBNRM programme

Criterion 3: Off-take quotas set at sustainable levels

Indicators:

- a) Use of scientifically set utilization quotas
- b) Age and sex restrictions on harvestable individuals

Criterion 4: Existence of viable markets

Indicators:

- a) Shelf turn over of community developed products
- b) Prices for CBNRM products traded

Criterion 5: Existence of product processing technologies

Indicators:

- a) Number of CBNRM processed products
- b) Revenues realised from processed products
- c) Training programmes for appropriate product processing for local people

Criterion 6: Improved food security

Indicators:

- a) Food per capita in CBNRM communities
- b) Mortality rates in CBNRM communities
- c) Incidences of malnutrition related illnesses

Criterion 7: Improved livelihoods of community members

Indicators:

- a) Life expectancy in the CBNRM community
- b) Per capita income in the CBNRM community

Criteria and Indicators for Principle 7: *Benefits should exceed the costs of conservation to the communities*

Explanatory notes

Natural resources management has an associated cost. Therefore, if the community is to be involved in sustainable management of a natural resource there must be a positive net benefit reward to sustain motivation. From purely an economic point of view, therefore, the cost to the individuals and the community at large of involvement in sustainable natural resources management must be less than the anticipated returns. In other words, sustainable natural resources management should not be a financial or economic burden to the community but the highway to improving rural livelihoods.

Criterion 2: Higher returns from the CBNRM

Indicators:

- a) Community net income from the CBNRM enterprises
- b) Government and donor financial contributions to CBNRM programmes
- c) Number of jobs created by CBNRM programmes

Criteria and Indicators for Principle 8: *Community based natural resource management should incorporate and facilitate the development of diverse natural resources based enterprises*

Explanatory notes

CBNRM community members should be capable and successful entrepreneurs in order to take full advantage of the economic opportunities offered by the natural resource being managed. Their enterprises need to flourish and expand. When this happens, the CBNRM community can have surplus income to invest in nurturing the resource base.

Since CBNRM activities in resource management involve business procedures, micro-finance, business management, technical training and marketing skills ought to be facilitated for the communities. Acquisition of such skills enables communities to effectively participate in enterprise development activities and make well-informed decisions on the use of natural resources.

Criterion 1: Diversification of enterprise development

Indicators:

- a) Number of CBNRM income-generating projects of different nature
- b) Training programs in various entrepreneurial skills for communities
- c) CBNRM initiated enterprises based on diverse natural resources

Criteria and Indicators for Principle 9: *Communities involved in natural resources management should be the primary beneficiaries from the natural resources*

Explanatory notes

The natural resource base is the basis of the way of life for CBNRM communities. To conserve the resource base they have to invest their time, energy and some finance to manage it. Therefore, there is personal sacrifice involved. Consequently, it is only fair and reasonable that they receive differentially higher benefits than outsiders who do not bear this personal sacrifice which comes about as a consequence of living with the resource.

As communities are directly involved in the conservation of resources, they need to be motivated to undertake their responsibilities seriously. Thus, there should be a mechanism that ensures that local communities take precedence as beneficiaries of such resources. This may necessitate existence of social and legal frameworks that promote equitable distribution of revenue or benefits among CBNRM members, irrespective of age groups and gender or any other discriminatory tendencies.

Criterion 1: Communities are primary beneficiaries

Indicators:

- a) Community based finance committee for management of CBNRM generated revenue
- b) Community set guidelines for distribution of revenue
- c) Proportion of resource revenue to the community
- d) Number of community viable economic activities funded by CBNRM generated revenue
- e) Emoluments for community members actively involved in the management of natural resources

Criterion 2: The community participates in and bears some costs of management of natural resources

Indicators:

- a) Proportion of community revenue re-invested in CBNRM programmes by the community
- b) Percentage of CBNRM programme budget from external sources (government and donors)
- c) Number of natural resource management staff paid using community revenues
- d) Number of consultative meetings on natural resource management held by the community each year.
- e) Number of community members involved in enforcement of rules and regulations.
- f) Number of community members engaged in monitoring of key CBNRM resources

Criteria and Indicators for Principle 10: *Community economic development initiatives through state assisted and private sector partnerships should be promoted*

Explanatory notes

Subsidies have their own advantages and disadvantages. While subsidies may be essential in the initial stages of business investment, their sustained use is counter productive. Subsidies used in this way lead to complacency and dependence and further rob the beneficiary of the ability to take initiative to better themselves. Therefore, the use of subsidies must be carefully weighed against their potential disadvantages as explained in the preceding statement. Instead private sector investment through partnerships with local communities should be encouraged.

CBNRMs should comprise producers and consumers that only require an enabling environment to flourish. Both the private and public sectors may provide such an environment. CBNRMs are likely to flourish in the presence of development policies that support and are consistent with their activities. Promotion of policies favourable to CBNRM by all concerned stakeholders, public and private, must therefore be encouraged.

Criterion 1: Economic development programmes occur through partnerships

Indicators:

- a) Number of community based enterprises developed through CBNRM and private sector partnerships
- b) Number of self sustaining community enterprises

Criteria and Indicators for Principle 11: *User groups benefiting from the resource should invest in the maintenance of the resource base*

An economic incentive is something that leads people to channel their efforts at economic production and consumption in certain directions. Benefiting from a natural resource should therefore act as an incentive to invest for the sake of present and future benefits. Communities should therefore be willing to pay license fees and other fees demanded for exploiting the natural resources. The CBNRM should then reinvest the revenue collected in the management of the natural resource.

Criterion 1: Subsidies are not provided

Indicators:

- a) Presence of innovative financing mechanisms
- b) Number of people who pay statutory fees for resource use
- c) Number of people who have access to local or state government services in relation to the benefits the government receives

INSTITUTIONAL AND SOCIAL SUSTAINABILITY CRITERIA AND INDICATORS

Social sustainability in natural resource management refers to that mode of resource management that takes into account local basic needs and practices. Social needs do not merely mean physiological needs, although these are central and dominant concerns. In addition, natural resources management and utilization must be equalitarian, benefiting all members of a community dependent on the resource without any unnecessary social differentiation.

A socially sustainable natural resources management programme incorporates people in the management of their natural resources. This does not merely mean giving benefits to communities, although this is an integral element without which all natural resources management remains empty. It implies, rather, the devolution and decentralization of natural resources management to local level institutions so that people are able to decide on how they want to use the resource as well as determine who should use it. When community based natural resource management is able to take care of local needs and involve the community in management, it is socially sustainable.

Criteria and Indicators for Principle 12: *Natural resource management institutions at the local level must be participatory and accountable to the people.*

Explanatory notes

For natural resources management to be acceptable socially, it is necessary and important that institutions, defined as the structures for governance integrate and incorporate people instead of marginalising them. This is important because when people are involved in management, they identify with rules put in place by such institutions. In addition, institutions must be accountable to resource users. When institutions are unaccountable, they are likely to be regarded by communities as illegitimate.

Criterion 1: Participatory local institutions in place

Indicators:

- a) Natural resources management institutions constituted by individuals from the producer community
- b) Democratically elected CBNRM management committees
- c) Bye-laws and constitutions instituted by the community

Criterion 2: Accountable institutions in place

Indicators:

- a) Number of meetings held to brief people on the CBNRM activities
- b) Audited accounts made available to community members
- c) Information and records on the operations of the CBNRM programme made available to the public.

Criteria and Indicators for Principle 13: *Authorities at higher levels of government must have the political will to decentralise and devolve power and functions to local level institutions*

Explanatory notes

For any CBNRM programme to be successful, the line government departments and agencies must be willing and be able to devolve responsibilities and the necessary capacity to the local level. In most cases such devolution or handover of responsibilities to the local level rarely happens as government department or agencies feel less powerful if they do so and as a result this has been a major constraint to devolution of responsibilities. However, for natural resources to be well managed it is necessary that the state be willing to share or at least devolve some of the power to the lowest institutions. This is important not just because the state alone lacks the capacity to adequately manage resources on its own but also because it motivates producer communities to proactively look after their own resources.

Criterion 4: Government delegates management functions to local institutions

Indicators:

- a) Government policy in support of local institutions in CBNRM.
- b) Community developed and implemented revenue sharing schemes
- c) Community approved resource utilization quotas
- d) Community based natural resources problem solving procedures

Criteria and Indicators for Principle 14: *Communities must legally own or have legitimate access and control over natural resources and their management through appropriate legal and policy frameworks*

Explanatory notes

For communities to effectively conserve natural resources, they need to develop institutions that may be recognized as legitimate by their members. They also need government support through government regulations, which will empower them to execute such responsibilities. Their legitimacy at the local level may be gained through legally sanctioned democratic processes or other existing traditional authorities. Ownership ensures

direct control of the proceeds from natural resources, which in turn provide incentives for management. Even more important, ownership provides them with political power and allows them to have leverage in negotiation over resource use.

Criterion 1: Existence of legislation supportive of CBNRM

Indicators:

- a) Legal framework in support of local level institutions.
- b) By-laws on community joint natural resources management in place.

Criterion 2: Existence of an enabling policy environment

Indicators:

- a) Adoption and incorporation of CBNRM as strategy for conservation and poverty alleviation.
- b) Appropriate policy framework in support of CBNRM
- c) Communities having secure tenure over the natural resources
- d) Community is exempt from paying some or all of local government levies associated with harvesting the resource

Criterion 3: Communities have legitimate control over resources

Indicators:

- a) Higher levels of government do not veto community decisions on natural resources manage
- b) Government assists communities establish management committees
- c) Communities have right of access and exclusion of outsiders from accessing the resource
- d) Number of community initiated natural resources management programmes

Criteria and Indicators for Principle 15: *There should be effective institutional co-ordination and co-operation to reduce conflict among natural resource management institutions*

Explanatory notes

The success of community based natural resources management depends to a large extent on the ability of line department staff to relate well with the local community and extension staff in other government departments. This is important as various government departments participate in efforts at conservation and sustainable utilization of various natural resources, namely fish, trees, wildlife, water etc. For example, departments of fisheries and forestry in various countries may be involved. Since unsustainable utilization of one resource may negatively affect the conservation and utilization of other natural resources, it is imperative that the departments involved share information and co-ordinate their programmes in order to achieve sustainable utilization of all natural resources.

For CBNRM to succeed, it is a prerequisite that institutions operating in one area cooperate and collaborate with each other. Traditional leaders who are the custodians of the land must also not be in competition with the newly created democratic institutions. Where institutions are in conflict they may derail or cause premature death to emerging CBNRM.

Criterion 1: There is institutional co-operation on the management of the natural resource on which the CBNRM is based

Indicators:

- a) Clearly specified and accepted functions and roles of all stakeholders involved in CBNRM
- b) Number of cross-sectoral training programmes on natural resource management
- c) Mechanisms for co-ordination in information dissemination and awareness raising among all stakeholders

d) Number of conflicts between and among institutions over resource management

Criterion 2: Conflict prevention and management mechanism in place

Indicators:

- a) Number of meetings of leaders of local institutions held to update each other and to share information on CBNRM
- b) Disputes arbitrated by local level institution.

Criteria and Indicators for Principle 16: *There should be graduated sanctions against transgression of commonly accepted rules and regulations governing the management of natural resources*

Explanatory notes

Under increasing scarcity and competition for natural resources, conflict resolution becomes a central task of tenure management. For a successful CBNRM system it is a pre-requisite that conflicts be resolved at the domestic level before resorting to external remedies. Traditional methods of resolving disputes over land and other natural resources have been in existence from time immemorial alongside mechanisms of acquiring land for agricultural and settlement (residential) purposes.

These mechanisms that have evolved from local knowledge and experience are critical to any system of regulation and control that should be developed. If the community's reservoir of experience can be combined with modern scientific understanding and know-how, sustainable use and management of natural resources would be within the reach of local communities, which are inextricably dependent on them. This combination can result in rules that are appropriate and acceptable and make enforcement cheaper.

As much as there are rules and regulations in place governing the use of natural resources, it does not necessarily mean that such rules are always adhered to. It is not unusual for people to violate rules, laws or customs. To ensure, that rules and regulations are respected, there is need for enforcement mechanisms that are well known as well as accepted by the communities. Once these mechanisms are accepted, they will be effective in disciplining offenders.

Criterion: Enforcement of rules and sanctioning of transgressions in place

Indicators:

- a) Clearly defined rules on appropriation
- b) Stipulated and accepted codes of conduct by communities
- c) Fines for offenders that are deterrent

Criteria and Indicators for Principle 17 *There must be social equality in the flow of benefits, which should reflect the differential cost of management*

Explanatory notes

Community participation is increasingly being used in development activities to provide an opportunity to the beneficiaries of development initiatives to play a role in project or programme initiation, design and implementation in order to ensure sustainability. It is a corollary of community development and yields, among other benefits, sustainability of projects and inculcation of the spirit of ownership; lowering the cost of development projects; transferring skills from hired technical experts to the local people and empowerment of the local community with the confidence to forge ahead with other development initiatives. Community participation as such is a fundamental pillar of rural development. In fact it is the triangular pillar of sustainable development- it is the process, the product and the performance measure.

For natural resources management to succeed, it is necessary that all social groups are incorporated as managers with the right not just to make decisions about what to do with the resources but to enjoy them as well. Women, children, all ethnic groups and elite groups must all enjoy management benefits. Social groups excluded from management are alienated and in the process disown natural resources together with any existing management programmes. It is also not enough only to democratize benefits from natural resources but that it is desirable that benefits are skewed in favour of those bearing more costs from the management of the resources.

Criterion 1: All social groups can access the resource

Indicators:

- a) Specified access to resource use by all social groups
- b) Mechanisms for equitable sharing of revenues among community members
- c) Access to CBNRM developed facilities equitable across social groups

Criterion 2: Primary beneficiaries are the communities

Indicators:

- a) Number of individuals from the community compensated for losses related to resource management
- b) Number of community members employed in CBNRM programmes
- c) Revenue that each household directly receives from CBNRM programmes
- d) Number and types of enterprises related to CBNRM programmes

Criteria and Indicators for Principle 18: *Communities should tap into available training opportunities availed by government agencies and non-governmental organisations to enhance the communities' awareness and natural resources management capacity*

Explanatory notes

While it is true that communities are essential in the management of their resources, today's CBNRM, interlocked with the complex world economy, require excellent negotiation skills, high degrees of numeracy and literacy, and competency in legal interpretation. Producer communities that do not have these resources and can not draw them externally are unlikely to tap and exploit the full opportunities open to CBNRM.

Therefore the significance of training the leadership of local CBNRM institutions need not be overemphasized especially when one looks at the role of natural resources in rural development and the livelihoods of the majority of the people living in rural areas of Southern Africa. For local initiatives to take place, the people, especially their leaders must be enlightened and possess the necessary skills and knowledge both traditional and scientific for effective management of the resources. This may call for specialist training programmes in various aspects of natural resources management. However, considering the high costs likely to be incurred in training communities, it is advisable that these communities tap into locally available opportunities to gain the requisite skills where possible.

Criterion 1: Availability of training programs and opportunities

Indicators:

- a) Number of community members trained in management of the resource
- b) Number of training programs available to the community
- c) Number of governmental and non-governmental agencies involved in CBNRM training programmes

Criterion 2: Management capacity of communities enhanced

Indicators:

- a) Satisfactory and acceptable community generated financial reports
- b) Number of community members trained in natural resources management working for the CBNRM programmes
- c) Community based M&E reports

Criterion 3: Improvement in communities' natural resources and environmental awareness

Indicators:

- a) Community members raising environmental issues in public meetings
- b) Community based environmental management initiatives implemented under CBNRM programmes

Criterion 4: Information dissemination mechanisms and facilities are available

Indicators:

- a) CBNRM information dissemination mechanisms at local, national and international levels
- b) Number of information dissemination materials disseminated

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