

THE EVOLVING CONTEXT OF COMMUNITY-BASED NATURAL RESOURCE MANAGEMENT IN SUB-SAHARAN AFRICA IN HISTORICAL PERSPECTIVE

James C. Murombedzi, Asset Building and Community Development, Ford Foundation, South Africa

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INTRODUCTION

There continues to be much debate about what constitutes Community-Based Natural Resources Management (CBNRM), as well as to why this model of resource management is becoming important for resource management and development. Broadly speaking, CBNRM is taken to refer to the devolution of control and management authority over communally held resources. Devolution itself is desirable because of a variety of management and political imperatives that make it difficult to manage these resources at any other level. In addition, devolution is said to result in improved resource management, conservation and development for local communities. In order to understand why devolution becomes desirable in the first place, it is essential that we take a long-term historical view of the evolution of resource management policies and practices on the continent. To achieve this, I will begin by stating the obvious. The history of the management of natural resources in sub-Saharan Africa can generally be placed into 3 distinct phases: The pre-colonial, the colonial and the post colonial phases. Each of these distinct phases is characterized by specific tenure relations, i.e. specific political relations regarding the relationship between various categories of land, people and natural resources. With reference to the dominant natural resource management paradigms, Murphree (1996) identifies four phases in the evolution of NRM in Africa:

- Conservation against the people;
- Conservation for the people;
- Conservation with the people; and,
- Conservation by the people.

The first three are, in fact, historical phases, while the last, conservation by the people, is viewed as the broadly desirable objective of current policy initiatives in sub-Saharan Africa.

In order to understand the evolution of different approaches to natural resources management, the current status of natural resources management on the continent, as well as to assess the extent to which the goal of conservation by the people will be attainable, it is important to revisit these historical phases in the trajectory of natural resources management in Africa. This paper will discuss community-based natural resources management in Africa today in terms of the processes that have occurred, leading to this type of management. Focus will be on the evolution of the different natural resources management strategies starting with the colonial expropriation of land and natural resources.

HISTORICAL OVERVIEW

In the pre-colonial phase, except for a few specially protected resources, most of Africa's natural resources were managed under a wide and creative range of state, private, common property and communal tenure arrangements for the benefit of the resource owners or those with rights of access or use of the resources in question. These tenure arrangements suited low population densities and ranged from pastoral to sedentary agricultural communities, and allowed for migration, translocation and other responses whenever natural resources became degraded.

A feature of European colonialism in Africa from the end of the 18th century on was the appropriation of land and natural resources by the colonial state. Colonial natural resource management policies were, and post-colonial policies to a greater or lesser extent continue to be, reflections of the European ideologies of the colonial masters who saw Africa as the bounteous and pristine cradle of humanity (Matowanyika 1989). The policies did not in any way attempt to accommodate or reflect the tried and tested resource management strategies and practices of the continent, and traditional environmental knowledge was systematically devalued by the implementation of these policies (Lusigi 1978; Marks 1984). The implementation of colonial resource management policies was expropriatory, arbitrary and treated the local African populations as either non-factors or as destructive factors to the environment (Matowanyika 1989; Murombedzi 1994).

The expropriation of land and natural resources by the colonial state was effected through centralizing policies and legislation which facilitated the assumption of state control over resources. In the British colonies, this was achieved largely through the operation of the 'King's Game' concept in legislation, while in the French colonies, natural resources came to be managed in a context defined and regulated in terms of the French Forest Code.

The imposition of colonial state control over resources took the form of land expropriation from the rural populations, as well as the establishment of protected areas and promulgation of other legislation which effectively removed the jurisdiction of local populations over those natural resources of the land that actually remained with them. This, according to Murphree (1996), was conservation against the people. Four results of this phase of imposition of state control over natural resources are important here.

Firstly, state assumption of control over resources did not improve resource management, but rather led to a weakening of local institutional arrangements for resource management, which in turn led to a demise of the local resource use regulatory mechanisms (Murombedzi 1990; Murphree 1988). The assumption of state control over natural resources meant that colonial governments had to develop the capacity to replace pre-existing natural resource management institutions. However, because of its limited capacity (both in terms of personnel and finance), the colonial state was not able to effectively police local resource utilization (Hill 1992; Nduku 1987). The focus of state control over natural resources was the regulation of individual resource users, whereas indigenous regulatory mechanisms had focused on the regulation of groups of users. As Lawry (1989: 5) observes:

It should be borne in mind that the state's principal objective in centralizing control was to assert its political authority over local interests, not to impose a new resource management regime. States have concentrated their regulatory efforts on individual users, not on local user groups.

Secondly, state control systematically devalued local environmental knowledge and thus effectively forestalled the future emergence of viable local solutions to resource management problems (Drinkwater 1991; Lawry 1989; Murombedzi 1989, 1990). State resource management agencies were created on the basis of new colonial legislation with no regard to pre-colonial jurisprudence. As such, institutions and organizations that had developed to manage the complex systems of rights and obligations to land and natural resources were completely disregarded in the new legislation, and no attempt was made to understand them. The indigenous institutions that had existed to manage natural resources became irrelevant to the new policy and legal dispensation. Because they were no longer being used, they went into a long process of atrophy. This absence or near absence of natural resource management institutions in most communities constitutes one of the biggest challenges facing community-based natural resources management initiatives in Africa today.

Thirdly, at the same time that colonial state assumption of control over natural resources was devastating indigenous natural resource management systems, the colonial state was incapable of developing sufficient capacity to manage natural resources at all levels, even within the newly established protected areas. This, combined with the disempowerment and breakdown of pre-colonial resource management institutions, led to widespread unsustainable resource use. Communities and individuals ceased to have any incentives to manage resources sustainably, while institutions that may have acted to enforce sustainability were increasingly disregarded. As Runge (1985) observes, the usurpation of local decision-making capacity by governments in Africa has been incomplete because of the state's own limited capacity to replace existing institutions with new institutions for resource management at the local level. This resulted in an 'assurance' problem, a situation in which "producers lack confidence in the capacity of either the state or local institutions to regulate resource use, creating considerable ambiguities over who has access to range, water and forests" (Little and Brokensha 1987: 194)

Finally, colonial state legislation also effectively created new tenure systems that acted to further alienate natural resources from their real managers – those individuals and communities that lived on the land and interacted daily with these resources as an integral part of their livelihood strategies. In particular, land was expropriated from local communities, and natural resources were also managed under separate tenure regimes. The imposition of European conservation laws on Africa was done without any knowledge or regard for either the prevailing conservation practices or the system of land tenure to which they were being applied. The imposition of new and discriminatory systems of tenure, together with frequent forced relocations and imposed land use systems, led to great insecurity of tenure among most indigenous African populations (Cheater 1990; Ranger 1985, 1988). Top-down authoritarian resource control, in destroying local institutional arrangements for resource management, also annihilated the resource management regimes under which resources had hitherto been jointly managed by communities. "The effect was that in most communal lands the mechanisms for collective conformity were curtailed and elements of an 'open access' perspective developed, with individual entrepreneurship invading the commons as a collective sense of proprietorship was lost" (Murphree and Cumming 1991: 4).

Thus at the end of the colonial era in sub-Saharan Africa natural resource management was already in a state of crisis, characterized by the decreasing ability of the state to regulate resource use, and the decay of local institutions that had previously developed to manage natural resources. At the same time, the impoverishment of most African societies throughout the long colonial period was actually increasing the dependence of most people on natural resources for their livelihoods. This increase in the use of natural resources was occurring in an environment

were there was no substantive regulatory capacity at any level from the highest central government level to the lowest local level. As a consequence, resource use was occurring with little or no management. Moreover, colonial expropriatory legislation had resulted in the legal alienation of local communities from the resources on which their livelihoods depended, and this in turn led to intense local hostility to conservation. At the same time, the state, local government, local communities, and private sector companies (such as logging and fishing companies) were competing to use diminishing resources. The result, obviously, was unsustainable resource use as evidenced by the accelerated rate at which most natural resources were degrading during this era.

Colonial natural resource management policies and practices continued virtually unchanged into the immediate post colonial era in sub-Saharan Africa (Drinkwater 1991; Mumbengegwi 1986). In most instances, conservation and natural resource management was hardly seen as a priority, given the pressing needs of instituting the post colonial state, while in some cases, the post-independence state actually strengthened colonial legislation. The King's game concept continued to define natural resource management in former British colonies, while the French Forest code was inherited almost unchanged by the post-colonial state in former French Colonies.

For most rural populations who had no legal access to natural resources, these resources actually became a liability, legally belonging to the state or some other powerful actor. Referring to wildlife, Murphree observes that "wildlife could no longer be regarded as a resource but only as a liability – someone else's property to either be tolerated with resignation, stolen (cropped, poached) or destroyed, covertly if possible" (1988: 2).

In the immediate-post colonial phase, natural resource utilization became an immediate source of revenue for the impoverished states of sub-Saharan Africa. Governments embarked on various programs of natural resource exploitation in order to earn revenue for the national fiscus. Timber logging contracts, fishing contracts, hunting concessions and so on were issued by the state with scant regard to the long-term implications for the resource base itself. In this regard, conservation continued to be perceived as an end in itself, and was the primary responsibility of the state. The guiding philosophy behind natural resource management continued to be European oriented, and was accepted virtually unquestioned.

However, state control over natural resources during this era went through several changes, each corresponding to the dominant development paradigm of that particular epoch. The post colonial phase in Africa saw a dramatic decline in economic growth in most sub-Saharan Africa. This was attributed to different causes, and different policy solutions were attempted at different times and in different places. The policy prescriptions for Africa's development crisis had a tremendous effect on the nature of the African state itself, and this in turn had important implications for the management of natural resources on the continent. I will now provide a grossly simplified description of the various stages of development and the implications of these for natural resources management processes in Africa.

STAGES OF DEVELOPMENT

Firstly, in the 1950s, development in Africa was viewed as a modernization problem. African economies were seen as backward, and economic growth was the desirable objective of development. Growth could only be achieved through rapid industrialization. In this paradigm,

a linear view of development was taken which was essentially concerned with a 'take-off into sustained economic growth' through the industrialization of the African economies. This was to be achieved largely through centralized state planning. State planning, in turn, emphasized an increasing role for the state in the economy, and this phase saw the proliferation of parastatal organizations operating in all key sectors of the economy, including natural resource management. Thus governments were not only regulating natural resource use, but also became important users of natural resources themselves. Centralization also necessitated a huge growth in government bureaucracies.

This phase had important implications for natural resource management. The focus on national planning and state participation in the economy directly led to a strengthening of the already centralized and bureaucratic state. This meant that the state became less responsive to local imperatives in resource management. In addition, powerful central agencies were established to manage, and sometimes participate, in the utilization of natural resources. Governments became important players in timber, fisheries, agriculture and other natural resource based enterprises. Centralization led to further disregard of local resource use needs and management capacities, and contributed to the further destruction of local natural resource management institutions. Moreover, the economic growth model of development alienated local development concerns and objectives, with the government solely determining what development was and how it was going to be achieved.

The 1970s saw the demise of the modernization approach to development, and its replacement by the focus on agricultural and rural development. During this phase, the utilization of available natural resources continued to be emphasized. The focus of development shifted from urban based industrialization to rural based agricultural development. Rural development came to be seen as the engine for development in African economies. Integrated rural development programs were initiated in most African countries, and large-scale international loans were made available for capital development in these programs. Little effort was made to understand the dynamics of the rural African populations.

As with the modernization era, the centralized African state continued to be empowered, this time, though, through the provision of large-scale loans. Direct government intervention in agricultural development further strengthened the role of the state in rural development, while the Integrated Rural Development Projects also further strengthened centralized planning. The continued tendency towards centralism implied the continued alienation of local communities from natural resources management. Centralization did not, however, result in increased state capacity to regulate resource use by local communities. In most instances, resource use continued. Poachers and other illegal resource users continued to be sheltered by the local communities, and central agencies became increasingly incapable of regulating resource use.

During this phase, concern with the continuing environmental decline by both the African states and international organizations saw the promulgation of new legislation that allowed conservation agencies to, in addition to traditional policing and enforcement efforts, engage in the provision of extension services and environmental education to the people. This legislation was not, however, based on any efforts to include local people in the management of natural resources, neither was indigenous environmental knowledge taken into account in developing the new laws. Thus, philosophically at least, the new legislation did not represent a break with the European conservation approaches of earlier colonial epochs, what differed was the approach to the implementation of the legislation which now moved away from policing and enforcement to accommodation. Attempts were also made in some cases to elicit local support for the state's

conservation initiatives through the provision of handouts by the state. School buildings were constructed, water sources developed and protected, roads were improved, for the local people, and so on. While these ‘developments’ were widely advertised as having been ‘financed’ through natural resources, no attempt was made, however, to develop a link between natural resource management costs and these ‘benefits’. *In particular, no attempt was made to devolve rights to natural resources to the local communities. For Murphree (1996), this was conservation for the people.*

Conservation for the people did not, however, significantly improve natural resources management. The state’s reach exceeded its grasp (Murphree 1996) and governments did not develop the additional capacities required to implement these new programs, *and the absence of a rights based context for community participation in natural resource management meant that local communities themselves did not develop the capacities necessary to fill in the vacuum left by the governments’ lack of capacity.* In the conservation for the people phase, many African states try to entice local peoples’ participation in conservation by passing on some revenues deriving from some forms of high value resource use, such as hunting receipts, park entry fees, and other tourism receipts, etc. These forms of benefit production for local communities are not, however, necessarily based on the devolution of rights to the resources in question to those communities that claim ownership of such resources. *In fact, it has been observed that such benefactions exacerbate the landowners belief that they do, as an aspect of common sense and natural justice, have a prior right to both use and benefit from the natural resources on their land. Further, such benefit is inseparable from powers of decision regarding general use that go with ownership.* Thus, unless local land owners have these powers of decision, natural resources will automatically always be inferior to other forms of resource use over which the land owners exert significant levels of control (Parker, undated).

By the late 1970s, the African state was crumbling under the heavy debt burden accrued from the earlier modernization and rural development phases. This directly led to the implementation of economic structural adjustment policies, ostensibly designed to assist these economies to recover from the devastation of the debt burden. Governments were saddled with crippling budget deficits, huge and malfunctioning bureaucracies, and stagnating economies. This phase was characterized by weak states and even weaker societies in Africa. Impoverished governments could no longer sustain the bloated bureaucracies of preceding epochs. Structural adjustment required that governments downsize, and devolve and democratize participation in the economy. State bureaucracies began to be downsized, and popular participation in development planning and practice came into vogue, both as a concept and as a tool for development. The market was emphasized as the single most important regulatory mechanism.

During this phase of participatory development, community participation in natural resource management rose to prominence as the pre-eminent natural resource management paradigm. This development of community-based natural resource management was not only in response to the demise of the post-independence African state, but also to the corresponding rise in the prominence of the market as the primary regulatory mechanism in natural resource management. It is particularly instructive to note that in the field of natural resources management, the devolution of management control from the state first occurred to private land owners before it was extended to land-holders in other tenure regimes.

Murphree (1996) refers to this stage as ‘conservation with the people’. This phase is characterized by the search for new strategies and approaches “seeking to co-opt the managerial capacities of [the] uncaptured peasantry [through] ‘community participation’”. This was

achieved through fundamental policy and legislative reforms that were occurring throughout Africa at this time, and largely influenced by the rise to prominence of participatory approaches to development planning and practice. The fundamental institutional reforms that made conservation with the people possible have included the devolution of government, tenure reforms, market reforms, and the production of some form of benefit for individuals and communities engaging in natural resources management.

As programs of community participation in natural resource management evolve in Africa, attempts are continuously being made to characterize, categorized and otherwise define the commonalties between these programs. This is not an easy task, and may also not be a fruitful task. However, Murphree (1993), analyzing the experiences of wildlife management programs in Southern Africa, generalizes 5 principles which characterize optimal communal wildlife management:

- Effective management of natural resources is best achieved by giving the resource focused value;
- Differential inputs must result in differential benefits;
- There must be a positive correlation between the quality of management and the magnitude of derived benefits;
- The 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.

KEY ISSUES IN CBNRM IN AFRICA

The current experiences with the implementation of CBNRM initiatives in sub-Saharan Africa raises a range of issues that should be closely analyzed in order to inform further developments. A recent study of CWM in Southern Africa summarizes these key issues (see Table 1).

Tenure Reforms and Natural Resource Management

In the post-independence period, virtually every Sub-Saharan African country attempted to reform its indigenous land tenure systems, basing these reforms on the assumption that indigenous tenure systems were outmoded and needed to be replaced. As Bruce (1998) observes, land tenure reform redistributes rights in land, not land. Since land tenure is constituted by a bundle or bundles of rights, tenure reform consists of removing some of those rights from the bundle and awarding them to others, adjusting the relative powers and responsibilities among the state, communities and individuals. Depending on the ideology of the government and its long term development vision, three scenarios of this 'replacement' type of tenure reform emerged (Bruce 1998):

- State ownership of land and collectivization of production (e.g. Tanzania, Mozambique, Ethiopia, Angola);

- State ownership of land with household based land use rights under permits or leases from the state (e.g. Zambia, Nigeria, Sudan, Uganda and the resettlement sector in Zimbabwe); and,
- Private individual ownership, eliminating the community interest in land (e.g. Kenya, Malawi, Uganda and Guinea).

Table 1. Key Issues in CWM In Southern Africa

Groups	Topics	Issues
1	Local Capacity	3 – Participation 6 – Nature of Resource Base (Demand / Resource Ratios) 7 – Degree of Communal Cohesion 8 – Local Governance
2	Economic Factors	6 – Nature of Resource Base (Demand / Resource Ratios) 10 – Markets and Economic Incentives
3	Management	8 – Local Governance 12 – Adaptive Management (Monitoring / Feedback) 14 – Planning and Planning Process 15 – Vertical and Horizontal Integration 17 – Learning and Diffusion
4	Politics and Policy	1 – Tenure (rights of access, Degrees of rights) 4 – Framework (Policy, Legislation, Institutions)
5	Resource Base	6 – Nature of Resource Base (Demand / Resource Ratios) 9 – Competing land uses 13 – Conservation / biodiversity impacts 12 – Adaptive Management (Monitoring / Feedback)
6	Outsiders	5 – External Inputs (Funding, Technical support, Training) 14 – Planning and planning process
7	Cross-Cutting Issues	2 – Cost Benefit 3 – Participation 11 – Incentives
8	Stand-Alone Issues	16 – Community conservation and protected areas 18 – Objectives

Source: SASUSG/IIED (1997: 14)

Replacement reforms have produced disappointing results, and collectivization has been abandoned in most places. The failures of replacement reforms has focused attention on the alternative ‘adaptation reform’ model (Bruce 1998). These models attempt to build on indigenous tenure systems, recognizing their capacities to evolve to meet new needs. Thus, for instance land tenure commissions in Zimbabwe and Tanzania specifically recommended a return of most control over land to the local authorities. The ‘adaptation reforms’ seek to create a supportive legal and institutional environment for the evolution of indigenous tenure systems. This usually includes explicit recognition of indigenous tenure rules, legal protection for land held under indigenous tenure, strengthening of local institutions and provision for conflict resolution mechanisms. According to Bruce (1998), an important lesson from these tenure

reform initiatives is that *it is difficult to create new institutions ex nihilo*. Rather, institutional innovation should have to also continue to rely on the lower levels of the traditional hierarchy.

Recent land tenure reforms in most of sub-Saharan Africa have increasingly been informed by the adaptation paradigm. In this regard, legislative changes have been promulgated that allow for different levels of community participation in the management of specific resources. Laws have also been promulgated which devolve specific rights to resources and to resource use to some communities or local authorities. Most of these legislative changes have been amendments to existing natural resource management laws, rather than wholesale legislative reforms, and they have also tended to focus on specific rights to specific resources, depending on the political economic contexts in which these changes have been occurring.

In general, however, legislative reforms in sub-Saharan Africa have stopped short of devolving clear and unambiguous rights over resource use to communities. Although this has been possible with private land-owners where such tenure regimes exist, African governments have continued to mistrust communities with natural resources, and legislative reforms have thus also tended to limit the extent to which communities themselves actually control and manage their resources. There remains, therefore, a fundamental need for communities to actually control and manage their resources.

Several conditions have to be met for effective implementation of tenure reform. These include (Cousins 1998):

- *Appropriate policies and legislation* – Appropriate policies and legislation must include recognition and empowerment for traditional authority, recognition for indigenous environmental knowledge, and guarantees of secure tenure for the local communities;
- *Clear and unambiguous land and resource rights*;
- *Adequate information on land and resource rights* – Programs of information dissemination to allow people to use these new rights must be implemented and on-going throughout the process of tenure reform;
- *Institutional capacity* must be developed at all levels to advise and support rights holders and facilitate their use of the law; and,
- *Adequate dispute resolution mechanisms*, including access to courts of law, must be built into the reform programs.

There is a differential focus on resources in Africa. In southern Africa, community natural resource management has focused mainly on wildlife. West African initiatives are generally concerned with the management of forest resources, while central African concerns are with forest and water resources. East Africa has developed various initiatives for wildfire management and eco-tourism. Besides the differences in the resources that are emphasized in the different initiatives, natural resource management is also at different stages of development in Africa, with most initiatives distributed between the conservation for the people and conservation with the people phases.

Local Institutional Development and The Question of ‘Traditional’ Authority

A fundamental challenge for community-based natural resources management in sub-Saharan Africa remains the issue of developing appropriate institutional mechanisms at the local level to

facilitate local control and management of natural resources. We have seen how successive colonial and post-colonial governments in Africa consciously attempted to destroy local level resource management institutions. This long history of attrition has meant that at the time when policies and laws are being promulgated to facilitate community based resource management, the communities themselves have largely lost the ability to control and manage natural resources.

This problem is recognized in most attempts to institute community-based natural resource management. Consequently, local institutional development has come to constitute an integral part of most CBNRM implementation efforts. Numerous models have developed for institutional development in the different initiatives in Africa. Typically, however, institutional development has tended to take the form of creating new and formal institutions, and to ignore the existing remnants of traditional resource management institutions. As a result of this, most evolving CBNRM programs are premised on the design of local institutions, usually committees and sub-committees, without much regard to local decision-making processes and arrangements. This has tended to alienate traditional authority, and in turn to undermine the CBNRM initiatives. However, the lack of recognition for authorities appointed by governments has meant that traditional leaders have retained their authority, particularly over land and natural resources (Ahmed 1998).

“Traditional leadership draws much of its legitimate authority from its embeddedness in the social and cultural life of rural communities, where discourses of ‘tradition’ and associated cultural identity are still persuasive for many” (Cousins 1998: 97). However, current efforts at instituting CBNRM also appear to have a ‘modernizing’ objective, whereby traditional authorities are considered as backward, undemocratic and generally too diffuse to be useful for the implementation of the new initiatives. Consequently they are rarely taken into account in institutional design. There is a danger that, unless the design of institutions begins to conform to local rights and other systems, the new committees will be viewed as simply another attempt to disempower traditional authority, and thus will not be recognized at the local level.

The Implementation Framework: How Do Rights Become Real?

A third issue in CBNRM is that it is not sufficient for the state to create an enabling policy and legislative environment for communities to manage their resources through the devolution and protection of rights for communities. These rights have to be somehow translated into concrete actions in practices. As Hunt (1991: 247) observes, “*Rights take shape and are constituted by and through struggle*”. Cousins (1998) further observes that for legally defined rights to resources to translate into effective command over those resources, the legislation needs to be supplemented with the detailed design programs to implement the new laws. Secondly, the passing of new resource rights results in a complex interplay of formal and informal institutions in the context of the social reality of the affected communities. He concludes that enacting legislation is not sufficient to turn the legal rights into reality, “active agents will have to press their claims and struggle to make their rights realities” (1998: 97).

THE ROLE OF EXTERNAL ACTORS IN COMMUNITY RESOURCE MANAGEMENT

In order to effectively control the natural resources, communities obviously require the assistance of other actors. In particular, appropriate systems of effective power sharing between state and community must evolve. For communities to become effective partners in natural resource

management, certain conditions have to be fulfilled. A fundamental prerequisite is that communities should have clear and unambiguous rights to the resources in question. These rights should *inter alia* specify what uses the communities, or individuals within communities, can make of the resources; how and when such uses are to occur; who shall use the resources when; who shall monitor these uses; what sanctions shall be applied for non-compliance; who shall enforce such sanctions and how; how the costs and benefits of resource use will be distributed; and how future decisions about resources will be made.

Government participation in this scenario is crucial, both in according these rights systems legality, as well as in providing the policy guidance and assistance with enforcement of locally agreed rules and regulations.

The private sector can assist communities with marketing skills, although it would be desirable for communities to pay for such skills directly and thus safeguard their interests from unscrupulous private operators. This implies that operators should not impose modes of resource use that are not in line with the community's overall production and consumption strategies. However, this condition can be modified by research, with researchers working in conjunction with communities to determine ecologically, economically and politically appropriate and socially acceptable modes of resource use.

Researchers can also assist communities with the provision of relevant and vital resource management information. Such information should obviously be relevant to the management requirements of the community, and should be produced jointly with the community.

Stratification within the communities themselves make collective decision-making a difficult proposition. What is required, therefore, is an institutional system capable of integrating the various strata within the community, as well as with other interests from outside the community. Integrative institutional forms must also develop conflict resolution capacity.

THE QUESTION OF OBJECTIVES OF CBNRM

There is very little agreement between communities and practitioners concerning the objectives of CBNRM. Further, there is little agreement between the various practitioners themselves, with objectives being contested between biodiversity, community development and other broader developmental concerns. The result has often been the arbitrary definition of the objectives and externally defined limitations on the nature, type and quantity of benefits that communities can derive from participating in CBNRM. In particular, this has focused many CBNRM initiatives on the production of easily quantifiable financial and economic benefits, whose contribution to local livelihoods is still to be demonstrated in most cases.

LEVELS OF DEVOLUTION

Although a lot has been said about the need to devolve tenure over natural resources to local communities, little has been said about the actual process of devolution, and, in particular, about the various levels that exist to claim and receive this devolutionary authority. While the devolution of rights to resources broadly defines CBNRM, there are various levels to which rights, control and therefore management capacities are devolved. Typically, communities do not constitute legal entities in most jurisdictions. Moreover, there is very little agreement over

what constitutes a community, both within and outside these so-called communities. As a result, most laws and regulations to devolve rights over natural resources usually devolve to local government bodies, which are seen as being closer to the communities, and therefore more efficient in eliciting community participation, than central government bodies. The result, however, has in most cases been that local government authorities rarely, if ever, devolve control over resources to levels below themselves (Murphree's Law). Further, communities are rarely in any position to demand devolution of resource rights from local government authorities, and in most CBNRM initiatives on devolution is delivered rather than demanded. Communities in such situations are thus supposed to be thankful to central, local and other government officials for whatever rights that are deemed essential for them, and are not expected to question the decisions of higher authorities.

CAPACITY BUILDING

Capacity building tends to emphasize the development of capacities at other levels than the state, with the state's role limited to policy making. It is essential to point out, however, that the state also needs to be assisted with developing the capacity to develop appropriate laws and policies, as well as to continuously monitor the implementation of such regulations. In many instances, the state also is the only implementing agency for CBNRM programs, and yet has limited capacity to do so.

BEYOND CONSERVATION WITH PEOPLE – TOWARDS CONSERVATION BY THE PEOPLE

There is a definite need to move beyond the current stage, where people are involved in conservation, to the stage where communities become the primary managers of resources to which they have strong and inalienable rights. As Murphree (1996) observes, the conservation with the people phase

reflects a new recognition of the environmental insights of Africa's cultures and the determinative power of Africa's rural people to shape the Continent's environmental future. In certain contexts this strategy has recorded successes... But is this enough? The successes we record are isolated and contingent, externally initiated and heavily subsidized by the outside world. The broad African picture remains one of struggle by rural peoples to find acceptable livelihoods on a deteriorating resource base and without the rights they need to unleash their abilities to sustainably use the resources of the micro-environments in which they live. To change this situation, we need to proceed to a further stage: *conservation by the people*.

However, to move beyond the conservation with the people phase, several conditions have to be met.

Table 2. Strengths and Weaknesses in Existing Knowledge

Subject	Excel -lent	Good	Fair	Poor	Comment
Tenure	✓				Well researched, principles established, monitoring systems in place
Cost/Benefit	✓				
Policy	✓				Well studied - great variability in the region
Legislation	✓				Derived from policy, required components well identified, considerable variability in the region
Institutions		✓ ✓			A good understanding of institutions but situational differences need considerable work
Resource Base		✓			Well researched and understood but still a need for biological diversity inventory
Resource Management		✓			Well researched, but deeper understanding of management at the ecosystem level required. Skills need to be developed at community level.
Land Use		✓			Well studied but a dynamic issue responding to a large number of environmental, socio-economic and political variables
Community Development		✓			Well understood and developing fast in CWM. Still suffers from reliance on classic approaches
Political Economy				✓ ✓	Poorly understood and accounted for in CWM. Highly important in the stakeholder analysis - will receive greater attention in South Africa.
Training		✓			Several good initiatives in the region - Namibia and Zimbabwe well developed
Funding		✓ ✓			Lessons are being learned by both donors and recipients but same mistakes are often repeated
Technical Support		✓			Management and level of technical support good. Application of strategic inputs is still developing
Adaptive Management		✓			Well understood - often difficult to apply. Ongoing requirement in all systems
Planning			✓		Variable in region - appropriate planning mechanisms need development
Markets			✓ ✓		Well Studied but dynamic and poorly understood especially at community level
Participation		✓			Elements are understood but application needs development.
International Influences			✓ ✓		Influence of international community and the effects of treaties such as CITES and CBD need greater attention

Note: ✓ - Indicates a Research Priority

Table 3. Development Approaches in Sub-Saharan Africa

Period	Dominant Approaches	Attributes	Outcomes
1950s	Modernization	<ul style="list-style-type: none"> • Linear view of development concerned with ‘take-off into sustained growth’ • Industrialization Key to economic growth • National planning • Parastatals proliferated 	<ul style="list-style-type: none"> • Centralized bureaucratic state strengthened • Powerful central agencies • Disregard for ‘local’ concerns
1970s	Agricultural / Rural Development	<ul style="list-style-type: none"> • Natural resource endowments stressed • Agricultural development focus • Large-scale international loans for capital development • Integrated Rural Development Programs 	<ul style="list-style-type: none"> • Centralized state empowered through credit • Direct government action • Centralized development planning
1980s	Structural Adjustment	<ul style="list-style-type: none"> • Heavy national indebtedness from 1970s • Weak and impoverished governments • Weaker and poorer societies • Unemployment and poverty • Market-driven economies 	<ul style="list-style-type: none"> • Stagnation • Devolution and democratization • Participatory development • State bureaucracies downsized

Table 4. Levels of Control Over Resource Use

Level of Control	Attributes	Control Processes	Outcome
State control	<ul style="list-style-type: none"> • Centralizing policies/legislation • State Resource Management Agencies • Centralized decision-making 	<ul style="list-style-type: none"> • State policing/enforcement • Budgetary Provisions (usually inadequate) for Resource Management 	<ul style="list-style-type: none"> • High-intensity state-local conflict • Unregulated/illegal resource use (poaching) • State and stratified citizen benefits • Pressures for devolution
State control with community 'involvement'	<ul style="list-style-type: none"> • State Resource Management Agencies • Some devolution of resource rights to State Defined "Local Level" - (usually Local Government) • Limited land-owner participation in decision-making • Limited rights devolved to land owners • Disaggregation of land and resource tenure 	<ul style="list-style-type: none"> • Joint state/local policing/enforcement • Local and state budgetary provisions (usually inadequate) • State definition of land use 	<ul style="list-style-type: none"> • Low-intensity state-local conflict • Reduced unregulated/illegal resource use • State-local benefit sharing • Impetus for more devolution
Land owner control	<ul style="list-style-type: none"> • Most robust in private/lease hold tenure systems • Comprehensive and land-owner rights • Locally determined and competitive resource use • Local land-owner resource management capacity • Aggregation of land and resource tenure 	<ul style="list-style-type: none"> • Self policing • State and other assistance with enforcement • Production of locally relevant benefit • Local land-owner definition of land use 	<ul style="list-style-type: none"> • Intra-community conflict • Local institutional development to regulate conflict • Direct local resource management • Adaptive resource management • Local innovation