Community-based Natural Resources Management in Southern Africa

Commons Southern Africa Occasional Paper Series 2/2003

TRANSBOUNDARY NATURAL RESOURCE MANAGEMENT:
The Legal and Policy Barriers to Community Participation

W. Magaya¹ and S. Mandivengerei

Centre for Applied Social Sciences, PO Box A1333, Avondale, Harare

¹Corresponding author: e-mail – wmagaya@cass.org.zw
This paper examines the nature and characteristics of transboundary natural resource management with special attention on legal and policy issues that have precluded community participation. The data was mainly collected through a desk study. The paper is an assessment of policies and laws at national levels vis-à-vis local levels. It seeks to highlight a need to model institutions with the incorporation of inputs of local communities. Transboundary natural resource management is defined as the management of natural resources that straddle national boundaries. Studies on community based natural resource management have shown that there is need to incorporate local communities in natural resource management. It is, therefore, important to look at the way communities living with the resources at national boundaries have managed the resources thus far. The existence of boundaries is not a big issue to communities living around these boundaries because they have next-of-kin in the countries on these boundaries. Therefore, issues of ownership were not problematic until laws at national level authorized use and ownership of natural resources, especially wildlife, by private landowners. The laws passed at national level are different not only from nation to nation but also from national level to community levels. Therefore the successful implementation of transboundary natural resource management should involve all stakeholders in the formulation of policies and laws affecting transboundary areas.

1. INTRODUCTION

The trans-boundary nature of environmental problems and the existence of trans-frontier conservation areas (TFCAs) raise questions with regard to the efficacy and applicability of community-based natural resource management (CBNRM) principles. The TFCAs variously known as bioregions or peace parks are conservation areas that span or cross national borders of two or more countries (Duffy, 1997; Singh, 1999). Griffin et al. (1999:21) defines them as any process of cooperation across boundaries that facilitates or improves the management of natural resources to the benefit of all parties in the area concerned. In essence trans-frontiers are intended to restore wildlife migration corridors within the broader bio-region, and reduce human encroachment into these regions.

A major discussion theme in CBNRM is the legal, regulatory and politico-administrative environments of common property governance as these either promote or stifle best practices in CBNRM. Wildlife management poses challenges for Southern Africa. By virtue of its migratory and fugitive nature any one community cannot own it. Its sustainable utilization and management therefore depends on the harmonization of policies and legislation governing access to wildlife resources across boundaries. The movement of wildlife over national and international boundaries makes wildlife common property or public access property in nature depending on the institutional regimes as well as the legal instruments governing the access to the wild life.

Rukuni (1994) contends that optimal natural resource management is dependent on the political, legal and administrative capacities of rural communities to determine their own future and to protect their natural resources and other economic interests. Because political boundaries do not necessarily constitute ecological boundaries, ecosystems transcend the political boundaries of two or more countries and may therefore be subject to a motley of diverse and divergent management and land use practices. It is important to note that this mismatch between cultural and ecological boundaries gives rise to legal, regulatory and administrative nightmares for CBNRM. This becomes more critical, especially when the resource in question is wildlife, which is fugitive and moves without reference to local and national boundaries except where there is constant intervention (Duffy, 1997).

Cumming et al. (1990:1) observed that although the establishment of large protected areas in Southern Africa has flourished, the parks are no longer sustainable because these protected areas were becoming increasingly isolated both physically and culturally from the surrounding communal farmers. Cumming contends that if biological conservation is to succeed in the region it has to embrace the entire landscape. In fact the expediency of intra- and inter-country cooperation in natural resource management, especially wildlife becomes more imperative when consideration is taken that some parks were established before recent principles of protected area design were appreciated (ibid.:7).
A park may, for example, not cover the ecosystem in which certain animal species carry out their annual migrations. A case in point is the Hwange National Park, Zimbabwe, which is mainly a wet season dispersal area cut off from river valleys and perennial water. In Botswana also, a largely arid region, the parks system and associated veterinary fences do not cater for the migrations of large herbivores with severe consequences for both them and their ecosystems. Singh (1999) rightly noted that although intended to define national territory, the arbitrary way in which borders were demarcated did not only have serious impacts by dissecting and fragmenting ecosystems but created a chasm between cultures that shared a common “heritage territory”. In the area spanning the proposed Gaza-Kruger-Gonarezhou GKG National Park demarcation of the colonial borders separated the Shangani people who are currently found disaggregated across the borders of Zimbabwe, Mozambique and South Africa. Singh (1999) perceived these divisions as having given rise to divided communities that are ambivalent about their citizenship and national loyalty. As Asiwaju cited by Singh (1999) noted:

“Border regions in Africa have always evolved as special areas of socio-political ambivalence, where the loyalty of local peoples to either of the states sharing a particular cultural area has not been, and never could have been, very strong. African border populations have at best evolved attitudes and characteristics suggesting a preference for binationality or dual citizenship.”

The major challenges facing CBNRM in trans-frontier areas include conflicting national interests, border disputes, irreconcilable and inconsistent legal and regulatory frameworks. Communities living on the frontiers in Africa do not view borders the same way they are viewed at the national and international levels because cultural borders don’t coincide with political borders. It is, therefore, evident that the creation and management of TFCAs in Africa, which is the responsibility of national governments that share common borders, should look at the interlinkages existing within the communities that live on the frontiers. Transboundary natural resource management initiatives should consider modelling natural resource management across borders and along the already existing common property regimes within the communities that live in these border areas.

2. AFRICAN BOUNDARIES

The partitioning of Africa at the Berlin conference of 1884 saw the powerful kingdoms of Africa being divided and broken up into small units that straddle the boundaries. Metcalfe (1994) noted that the Shangaan people who live east of Beitbridge and around the Gonarezhou area in Zimbabwe have cultural continuity with people in Mozambique and South Africa. The formation of the Gonarezhou Kruger game park has seen the calling together of kinships from Mozambique and the Makuleke clan of South Africa that had been displaced by the formation of the Kruger national park.

Collaboration of communities at the frontiers is not a major issue in Africa because most of the communities share a common ancestry. Some have never lost their social integrity. For example in the Nyika-Vwaza area between Malawi and Zambia, Chief Chikulayamemba has constituents in both countries and his people in Zambia are often unofficially involved in harvesting resources in the protected areas of Malawi (Griffin et al., 1999).

In Africa 40% of national parks lie on the boundaries, 32.1% of all African boundaries have a national park on one side or both. Africa has 103 boundaries that total a distance of over 80,000 kilometres. Of the fifteen major water bodies in the world four are in Africa (Table 1), together these areas cover 26% of the global land surface (Blake, 1993; Cumming, 1999). The Congo, the Zambezi, the Nile and the Niger rivers cover 26% of all the land covered by all the water bodies, and straddle between 8 and 10 international boundaries. It is therefore evident that the creation and management of TFCAs in Africa should look at the interlinkages existing within the communities as a starting point.
Table 1: The world's 15 largest water catchments by number of water catchment countries

<table>
<thead>
<tr>
<th>Water catchment</th>
<th>Water catchment area (million ha)</th>
<th>Length (km)</th>
<th>No. of water catchment countries</th>
</tr>
</thead>
<tbody>
<tr>
<td>Niger</td>
<td>220</td>
<td>4200</td>
<td>10</td>
</tr>
<tr>
<td>Congo (Zaire)</td>
<td>372</td>
<td>4700</td>
<td>9</td>
</tr>
<tr>
<td>Nile</td>
<td>303</td>
<td>6650</td>
<td>9</td>
</tr>
<tr>
<td>Zambezi</td>
<td>142</td>
<td>3500</td>
<td>8</td>
</tr>
<tr>
<td>Amazon</td>
<td>587</td>
<td>6400</td>
<td>7</td>
</tr>
<tr>
<td>Ganges-Bramaputra</td>
<td>160</td>
<td>2900</td>
<td>5</td>
</tr>
<tr>
<td>La Plata</td>
<td>320</td>
<td>4880</td>
<td>5</td>
</tr>
<tr>
<td>Amur</td>
<td>190</td>
<td>2820</td>
<td>3</td>
</tr>
<tr>
<td>Mississippi</td>
<td>325</td>
<td>6020</td>
<td>2</td>
</tr>
<tr>
<td>Ob</td>
<td>301</td>
<td>5410</td>
<td>2</td>
</tr>
<tr>
<td>Saint Lawrence</td>
<td>128</td>
<td>4000</td>
<td>2</td>
</tr>
<tr>
<td>Yenisey</td>
<td>253</td>
<td>5540</td>
<td>2</td>
</tr>
<tr>
<td>Lena</td>
<td>249</td>
<td>4400</td>
<td>1</td>
</tr>
<tr>
<td>Mackenzie</td>
<td>184</td>
<td>4240</td>
<td>1</td>
</tr>
<tr>
<td>Yangtze</td>
<td>196</td>
<td>6300</td>
<td>1</td>
</tr>
</tbody>
</table>

The African border does not only demarcate sovereign states but it also demarcates different tenurial regimes within the states, under which national laws apply differently. An example is Zimbabwe's wildlife Act of 1975 which gives authority over wildlife on private land to the owners of the land. This Act, however, does not give the same authority to rural communities living in the communal lands. This gives rise to conflicts between private landowners and communal land dwellers.

3. TBNRM: AN OXYMORON

Considering that most national boundaries do not conform to ecosystems as well as socio-economic boundaries, cooperation in the management and planning of lands surrounding trans-border areas becomes an important challenge for CBNRM.

As McNeely cited in Singh (1999:19) observed, for a bioregion to be managed sustainably it must encompass sufficient habitat for viable populations of all native species in the region, the areas should be large enough to accommodate natural disturbance regimes. A natural disturbance regime is a period of centuries within which species and ecosystem structures and processes can evolve, and human occupancy and use are at levels that do not result in ecological degradation. Thus the development of coherent biodiversity conservation plans for ecoregions creates potential for strategic goals aimed at particular sites, populations, and ecological processes as well as combating any threats to the ecoregion as a whole (Singh, 1999).

Devolution of responsibility for conservation becomes part of a broader process of shifting management of these protected areas. Murphree (1994) underscores the need for natural resource management regimes to operate within larger systems of cooperation and control. Communities in natural resource governance should have the capacity to deal with and participate in systems of governance at larger geophysical and demographic scales. This implies that for TBNRM to succeed participating communities and the relevant government organs must have efficient and effective monitoring and control mechanisms. It is, therefore, cost effective at national levels to give full or part management responsibility to the communities that live with these resources.

Ostrom (1990) points out that when common property resource systems (CPRS) appropriators design their own operational rules (Design Principle 3) to be enforced by people who are local appropriators or are accountable to them (Design Principle 4), using graduated sanctions (Design Principle 5) that define who has rights to withdraw units from the CPRS (Design Principle 1) and that effectively restrict appropriation activities, given local conditions (Design Principle 2), the commitment and monitoring problems are solved in an interrelated manner. For this system to be successfully implemented, there is need for a conflict
resolution mechanism that allows both perpetrators and other community members to resolve problems that arise without causing disintegration of the system. Potential conflict for scarce resources is very high, consequently well-developed court systems that handle conflicts have been in place for a long time.

Government should participate in the CPRS by recognizing the rules and regulations that pertain at the local level. This calls for governments in participating nations to create legislation that enables communication between and among the appropriators at the local levels with minimal government intervention. This will help government in that the resources to be safeguarded will be guarded at a minimal cost to government.

If government presumes that it has the authority to set rules then it will be difficult for the communities involved to have a rule based common property resource. The inter-governmental agreements that participating governments sign before proceeding to create TFCAs are an indicator of government’s presumption. It is, therefore, imperative that governments put in place legislation that makes it difficult for the participating communities to ignore the rules at the common property resource level by going to government and trying to have these overturned. The system has to develop nested enterprises to ensure sustainability; Ostrom states that “establishing rules at one level, without rules at the other levels, will produce an incomplete system that will not endure over a long time”.

Owen et al. (1993) stated that community based systems evolve with the changing availability of resources. This results in the communities restricting use rights and setting up enforcement mechanisms to ensure equal access and sustainability of resources. Community based systems are operated by individuals responding to tenurial and other incentives to act in their own best interest and maintain the collective resource base (McCay and Acheson, 1987; Berkes, 1989; Gadgil and Berkes, 1991; Ostrom, et al., 1992; Owen et al., 1993).

Governments have followed the colonial systems of mining resources for quick capital gains to maintain state coffers. They have a strong emphasis on economic development and lack sensitivity to socio-economic needs of the communities that live with these resources. This, coupled with the lack of resources to monitor resource conditions, has resulted in a system that is conformal to public access. This has resulted in negative impacts on biodiversity as traditional community-based tenurial rights are eroded and the state imposed “public” rights set in (ibid.: 378).

4. GLOBAL CONSERVATION AND TBNRM

The 1980 World Conservation Strategy’s major message to the world is that the well being of the world today hinges on conservation of living natural resources. Berkes and Farvar (1989) pointed out that the major issues today are the means to achieving the objectives of sustainable use of resources. Should the process be top down, bottom up, an import from industrialized countries or resuscitation of and rehabilitation and adapting “indigenous” resource management systems and upgrading local-level institutions?

The Rio declaration on environment and development had the objective of establishing a new and equitable global partnership through creation of new levels of cooperation among states, key sectors of society and people. The declaration states that the world must work towards international agreements, which respect the interests of all and protect the integrity of the global environment and developmental systems, and also recognize the integral and interdependent nature of the earth. The declaration proclaimed twenty seven principles, among which are principles that encourage global partnerships.

Principle 7 of the Rio declaration states that, “States shall cooperate in a spirit of global partnership to conserve, protect and restore the health and integrity of the Earth’s ecosystem”. In view of the different contributions to global environmental degradation, states have common but differentiated responsibilities. The developed countries acknowledge the responsibility that they bear in the international pursuit of sustainable development, especially in view of the pressures their societies place on the global environment and of the technologies and financial resources they command. Principle 22 outlines that in their cooperation states should also not forget the indigenous people and their communities who have vital roles in environmental management and development because of their knowledge and traditional practices. States should recognize
and duly support their identity, culture and interests and enable their effective participation in the achievement of sustainable development (ibid.).

The ultimate principle should be to bring together governments and people to cooperate in preserving ecosystems that span political boundaries. Cross border cooperation in ecosystems management can enhance the standardization of conservation controls on both sides of the border. In effect this would enable the protection of migratory species, water bodies, and scenic landscapes that transcend boundaries (Timothy 2000). Cooperation in natural resource management would also curb possibilities of over-exploitation of resources on one side of the border. Thus such action promotes the conservation, balance, harmony, integration and equity principles inherent within sustainable development and allow for ecosystems to be managed holistically (ibid.). However, Timothy (1999:182) bemoans the invariable tendency of political boundaries of hindering collaborative planning, resulting in imbalances in the use, physical development, promotion and sustainable management of shared resources.

5. THE COLLABORATING NATIONS

There is need for a critical analysis of actual and perceived threats to ecological stability and political security in relation to control, use and exchange of natural resources among Southern African states and appreciate and empirically assess cross-border conflicts and cooperation over a range of natural resource sectors. Competing and conflicting claims to and uses of natural resources at interstate or at trans-border community level as well as trans-boundary ecological effects of natural resource management caused by intrastate practices all need further research to delineate their implications on CBNRM.

However, there appear to be limited experiences in the field of such collaborative and cooperative planning and natural resource management in Southern Africa despite the existence of trans-frontier conservation areas. Danby (1997) singles out Zimbabwe and Zambia as among the countries of the region that are taking the lead in cooperative management of bioregions. The two neighbouring countries are working together for the sustainable utilization of the Victoria Falls Eco-resort. Recognising the increasing pressure from tourism development around the Falls area, the two governments developed a bi-national team to carry out a strategic environmental impact assessment of these developments and create a management plan for a 30 kilometre radius around the Falls. Based on the results of this joint exercise, the two countries have reduced development around this world heritage site.

What is particularly encouraging about these developments is the fact that Zambia and Zimbabwe already have two contiguous sets of trans-frontier conservation areas on their common border along the Zambezi River in the Victoria Falls region. Victoria Falls (Mosi-Oa-Tunya) and the Mana Pools-Lower Zambezi National Parks, are the two conservation areas that straddle the border. There are other areas where plans to establish large trans-frontier conservation areas have reached an advanced stage with support from the World Bank and the Global Environmental Facility (GEF). One major interstate collaboration in cross-border natural resource management is the proposed GKG Trans-frontier Conservation Area whose aim is to link the individual attractions in Zimbabwe, South Africa and Mozambique in order to realise a competitive advantage in effectively and synergistically marketing these eco-tourism destinations across national borders for the greater benefit of participating countries.

The proposed GKG Trans-frontier Conservation Area encompasses parts of south-western Mozambique, north-eastern South Africa and south-eastern Zimbabwe and covers a vast area of 99 800 square kilometres. The Mozambican component which covers an area of approximately 66 987 square kilometers extends from Rio Save in the North, Zinave National Park and Ressano Garcia in the east to the international boundaries of South Africa and Zimbabwe in the West. The South African component comprises the Kruger National Park (including the Makuleke Region) and adjoining provincial and private game reserves along the western boundary to as far as Beitbridge, covering a total of approximately 22 147 square kilometres. Zimbabwe, the proposed area consists of the Gonarezhou National Park, Game Conservancies along its western boundary namely the Save and Malilangwe, the community managed wildlife areas southwards along the Limpopo River, as well as a strip of land extending westwards along the Limpopo close to Beitbridge. The area spans over approximately 10 645 kilometres.
The proposed trans-border conservation area would re-establish populations of giraffe, Liechtenstein hartebeest, sable antelope, waterbuck, buffalo and elephant into much of Gaza National Park in Mozambique where years of civil war, recurrent droughts and wildlife slaughter of the pre-independence tsetse eradication programme had significantly decimated the wildlife populations (Singh, 1999). The proposed trans-frontier conservation area would concomitantly contribute to income generation through tourism and game management.

The SADC Wildlife Policy, which promotes the establishment of trans-frontier conservation areas as a means of interstate cooperation in the management and sustainable utilization of ecosystems that transcend national boundaries, and the SADC Protocol on Wildlife Conservation and Law Enforcement which promotes regional cooperation in the development of a common framework for the conservation of natural resources, enforcement of laws governing these resources and their sustainable use, provide the framework for trans-frontier development and management. Within this framework of regional cooperation, one of the objectives of the GKG TFCA is to develop frameworks and strategies for local communities to participate and realize tangible benefits from sustainable use and management of natural resources that occur within the GKG TFCA.

Singh (2000) contends that most if not all of these proposed TFCAs, have CBNRM programmes as their main component. It is, however, important to note that most CBNRM projects though community-based are not necessarily community governed as government structures and agencies are unwilling to share or devolve power beyond the lowest level of government. In the proposed GKG, exclusion of the local communities on both sides of the borders in the most crucial inception-planning phase is apparent. In the initial round of meetings and conferences local communities have been excluded as aptly stated by one local community leader on the Zimbabwean side:

"I had to discover through my own sources that there were GKG TFCA meetings going on, and I follow them up and impose myself representing the community on the agenda. My argument is that they should involve the communities that will be in the GKG in these meetings. The earlier it is done, the better. At one meeting I told them to bring the Shangani Chief in Mozambique on board so that he would represent his people who live in the three countries".

There is a possibility that TFCAs may be used as mere tools to expand state control to hitherto remote areas (Duffy, 1997, 2000; Singh, 2000). As Mohamed-Katerere (2001) observed, limited capacity within local communities could result in the usurpation of local needs and priorities by outside actors or local elites in pursuit of their own goals. In effect any intended empowerment of communities living with the resources and conservation goals are all compromised.

Besides wildlife, another resource that requires inter or intra-state cooperation within the region is water. About 70% of the land area of the region is occupied by watercourse systems that are shared by two or more SADC member states (Chenje et al., 1996). Although renewable, the waters of these systems are increasingly causing competition among the riparian countries (ibid.) Because these international watercourse systems are common resources shared by riparian countries, their development and utilisation should be governed by the principles of international law where each of these states has the right to an equitable and reasonable share in the conservation, protection, management, allocation and utilization of these water resources (Chenje et al., 1996:151). Watercourse systems and their resources should therefore play a very significant role in the state of the environment and the regional integration process. In accordance with this, various organizations and institutions have been set up to coordinate the formulation and implementation of policies, strategies, programmes and projects with particular responsibilities of coordinating such activities lying with sector coordination units or commissions (ibid.:155).

The regional agreements on water resources in SADC are mainly single purpose arrangements for particular exploitation of water resources. While the recognition and existence of these agreements have acted as a deterrent to activities that may lead to user and environmental conflicts, they have not satisfied the requirements of equitable and reasonable utilization that takes into account all the relevant factors necessary to improve socio-economic welfare of the states without causing appreciable harm to other basin states (Chenje et al., 1996). The agreements have neither taken into account the requirements and need for the
conservation, protection, equitable utilization, and management of water resources nor have they had a
criterion to be followed in the equitable and reasonable utilization of water resources in the shared watercourse
systems (ibid.:172). The complexities of dealing with shared water resources resulted from watersheds
covering large areas that span multiple climates and land forms. Blake (1993) pointed out that watersheds
are the most readily defined ecological units.

CONCLUSION

From the above discussion, we are faced with a situation that needs a systematic approach to transboundary
natural resource management. It is important that the endeavours to have institutions that are recognized at
national and international levels for the management of resources that straddle boundaries are not just a
fad; these institutions can become the policing system for the effective management of natural resources.
In this light, it is therefore important to develop legal instruments that have input from the communities living
with the resources, and model the management of the resources along already tried and tested CBNRM
systems. The idea of cooperative engagement in natural resource management is hailed as a noble one but
its success and impact on local communities living with the resources faces numerous constraints. It is
important to realize that whatever reason for creating a TFCA - cultural, ecological, or economic, TFCA
creation remains essentially a political process and depends largely on the political climate that exists at
the time. This, however, is not the case at the local levels. The communities have already been managing
resources across boundaries long before the boundaries were in place. The implementation of transboundary
natural resource management initiatives definitely needs the participation of communities living with the
resources.

ACKNOWLEDGEMENTS

We sincerely thank the Centre for Applied Social Sciences (CASS) and the Programme for Land and
Agrarian Studies (PLAAS) of the University of the Western Cape, South Africa, for funding this study
through a research grant from the Community-based Natural Resource Management in Southern Africa
Project.

All views, interpretations, recommendations, and conclusions expressed in this paper are those of the
authors and not necessarily those of the supporting or cooperating organizations.

REFERENCES

Chenje, M., and P. Johnson (Eds.), 1996. Water in Southern Africa. SADC/IUCN/SARDC Communicating
Environments 25(1):1-14
and Optimisation 8:127-141.


