Journal of Sustainable Development in Africa (Volume 14, No.6, 2012)
ISSN: 1520-5509
Clarion University of Pennsylvania, Clarion, Pennsylvania

TRANSBOUNDARY NATURAL RESOURCE MANAGEMENT AND DISTRIBUTION OF RIGHTS AND BENEFITS TO LOCAL COMMUNITIES ON THE ZIMBABWE – SOUTH AFRICAN BORDER

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ABSTRACT

The creation of Zimbabwe-South African border by colonial powers divided resources and communities that once co-existed and more significantly changed the nature of the relationship that communities had between them and with their natural resources, giving rise to conflicts. After the advent of independence, one of the most significant events in natural resources management has been the integration of environmentalism into the development agenda. An outcome of the rise of environmentalism is the concept of natural resources management. The meteoric rise of transboundary approaches in Southern Africa is due to a number of factors, including the need to better manage shared resources; the drive for economic growth through regional integration and development, the need to foster community participation, promote peace and security and embrace the forces of globalisation. However, despite these envisaged benefits of transboundary natural resource management (TBNRM), there are numerous concerns arising from these initiatives ranging from community marginalisation, inter - community conflicts and inter – state inequity in the distribution of benefits. The study used both qualitative and quantitative research methodologies. The study noted that border communities, already at the margins of social, political and economic opportunities are becoming further marginalised through TBNRM initiatives. Furthermore, TBNRM initiatives are affected by conflicts between community and private interests, unresolved imperative of land reform, confusion around the organisational roles and responsibilities of the state, local versus Non-Governmental Organisations, donors, and the power imbalances among stakeholders. Considering the challenges, TBNRM initiatives should take into account the ecological, socio-cultural, economic, political, and institutional concerns of stakeholders, especially the local communities. TBNRM should operate through existing local organisation.

Keywords: Transboundary Natural Resources Management, Household Food Security, Community Participation, Sustainable Development, Community Ownership, South Africa-Zimbabwe Border

BACKGROUND OF THE STUDY

The apparently inexorable demand for natural resources in increasingly overcrowded boundary areas is widely recognised as one of the most serious threats to the ecological and political stability in Southern Africa A large part of the problem is largely due to the fact that distribution of resources rarely coincides with political boundaries, creating great tension between the need for effective management of resources as natural units and the desire of individual states to take full advantage of resources within their jurisdiction (Ashton, 2000).

The TBNRM in Southern Africa has reinforced the inherited colonial models of land-use planning and preceding allocation of land rights. When TBNRM initiatives were implemented, decisions were made around issues such as animal

corridors and re-classification of existing uses without adequate consultations with locals who were affected (Burt, 1994). Petite consideration was paid to latent impact of TBNRM on the poor, such as forced removals, loss of arable land and social dislocation. The ramification of TBNRM initiatives in the study area further resulted in the widening of income disparities between the rich and the poor, as well as conflicts. The major problem in the implementation of TBNRM was the fact that initiatives were perceived as supply driven and consequently not able to address the imbalance of power between the local actors on the one hand and the state and private investors on the other (Chenje, 2000). Since the powerful and influential dominated the TBNRM initiatives, the legitimacy of the projects remained highly contested. One fundamental question often raised is whether stakeholders view TBNRM as an opportunity to begin to tackle redistribution of rights and benefits in contested cosseted areas.

Resource management in border areas deserves special attention because in these areas inequities surfaces and conflicts often erupt. Land, water and wildlife are potential sources of conflicts as they are increasingly scarce and are increasingly an important component of national security. In response to the problem of resources management in border areas, arrangements and initiatives which focused on TBNRM have emerged with the objectives of improving conservation of shared resources that are being depleted or degraded at unsustainable rate; ensure that communities and other stakeholders benefit from sustainable utilisation of resources, and to optimise regional distribution of benefits from resource use (Applelgren and Klohn, 1997).

The cross boarder nature of resources and ecosystems, and economic justification has given rise to the introduction of TBNRM in southern Africa. In southern Africa TBNRM is seen as an important new tool in broad landscape management approach to sustainable natural resources management and biodiversity conservation; a way to promote regional economic development, reunite divided communities and bring peace to troubled regions, and a way to fulfil many other opportunities. The environmentalism witnessed over the past decade has witnessed a growing focus on social and scientific research and paradigm shift in natural resource management and the emergence of community-based natural resources management (CBNRM) as an accepted movement (Boadu, 1998). Contemporary trends in natural resources management brought by globalisation, and increasing efforts at achieving regional economic integration have contributed to growing enthusiasm in TBNRM by non-governmental organisations, donors and the private sector as an additional natural resources management movement.

Modernity and the emerging new environmentalism have further given rise to the growing global commons movement whose perspectives hinges on the fact that the world is becoming small and interconnected in a manner that requires global responses to what is termed the global commons (Fakir, 2000). The advocates of global commons in Southern Africa are arguing that local environmental problems have global impacts, and consequently are considered transboundary in nature. The response to such transboundary problems, according to their logic, requires global science to understand, and global institutions and experts to manage them. In Southern Africa, there is a growing culture of responsibility to an external constituency such as international conventions, donors and academic peers. Increasingly, policy makers and stakeholders are striving to direct supranational decision making on the global commons hoping to discover the perfect commons model. The growing culture of responsibility to the global commons agenda is the key driver in the development of TBNRM projects in Southern Africa

Another driver of TBNRM in Southern Africa is the conservation concept, based on the belief that large protected areas such as Transfrontier parks are essential for biodiversity conservation, and can pay for themselves through non-

consumptive utilisation (Fall, 1999). The larger the conservation area, the more biodiversity that can be conserved, and this result in more tourists being accommodated at one time. The conservative drive in Southern Africa is based on the concept of ecosystem management. Ecosystem management seeks to manage natural resources at the ecosystem level, and recognises that an area of ecosystem might overlap with administrative, political and international boundaries. By setting out TBNRM projects it is hoped that single management plan and approach can be adopted in order to minimize competing management objectives and administrative arrangements (Goldman, 1998).

The livelihoods of people living on the border between South Africa and Zimbabwe are heavily depended on the use of natural resources and the environment (Fall, 1999). Therefore, efficient management of the ecosystem is essential for long term sustainable development of the border areas. The natural environment is increasingly under pressure from population and animal growth, poverty, and macro – economic changes associated with globalisation. South African and Zimbabwean governments have struggled with management of natural resources within their borders. This is evidenced by lack of effective policy and legal frameworks for conservation of natural resources in these areas. Commercial poaching of endangered wildlife species such as elephants, lions and rhino is rampant in these areas. The rise in the poaching and unsustainable utilisation of resources on the South Africa - Zimbabwe border, has been necessitated by lack of effective coordination and management of resources, especially those which straddle the international border (Griffin, and others, 1999).

Furthermore, while the two governments have authority to regulate resource use within their borders, they do not have authority to regulate resource use across borders. Thus, lack of cooperation has made it difficult to control natural resources. Actual and perceived inequalities in resource use between the two nations have proved to be difficult to overcome and this has inhibited cooperation. Again, uncertainties about the status of and trends in resource abundance has hindered decision making and therefore often contribute to overexploitation. The situation in Southern Africa has been complicated by the fact that international law for management of trans-boundary resources is poorly developed and weak policy and legal frameworks are largely responsible for poor historical management of shared resources.

THE STUDY AREA

South Africa – Zimbabwe border has a population of 67 000 and the area covers approximately 32 120 hectares (Central statistic Office, 2011). The study area is in the agro-ecological zone 4 which receives 200-250 millimetres of yearly rainfall. The area's main habitats are agricultural lands and rangelands that are home to 130 villages. The farming systems along the border are dry-land; rain fed, and mixed crop-livestock and pastoral. Farmers in the study area rely both on off and on farm income and over the past decade, farmers' copying strategies have included diversifying livelihood strategies, intensifying agriculture, and exiting agriculture The South Africa - Zimbabwe border has largely remained unchanged since 1894, when it was established by colonial powers. Families, kin-groups, and tribes, which have been moving along the borders in search of resources from the time before independence all lay claim to traditional territories. The entire boarder area has been characterised by the usage and competition over resources by various human populations, often with different approaches to resource use and management. Artificially, imposed national borders disrupt the historical land-use patterns and activities. The border seldom reflect present political or land use zoning boundaries; as a result, locally meaningful landscapes often conflict with those maintained by international agreements or national land-use zoning policies. Traditions such as respect for natural resource use and conflict resolution approaches have been replaced with poor government control mechanisms, enforcement agencies and private enterprise, which have

a predisposition towards promoting environmental degradation. The shaded part of the South Africa – Zimbabwe border embody the study area where the research was conducted.

figure 1: A Map Showing South Africa-Zimbabwe Border.

Adapted from Graphic Maps, 2012

STATEMENT OF THE PROBLEM

TBNRM was seen as the ideal way of ensuring that the locals take charge in resource governance across borders, but the implementation process has been characterised by a number challenges. What remained a problem is that resources continue to be degraded, and locals continue to be marginalised in terms of management of resources and redistribution of rights and benefits to the local communities. TBNRM has achieved very little in terms of empowering local communities in resource governance. The central governments have remained in control and the partial decentralisation had failed to redistribute rights and benefits to the local communities. Poor TBNRM has resulted in biodiversity loss, modification and fragmentation of habitats, degradation of water and overexploitation of native species. Without urgent corrective measures, communities will remain deprived of valuable food and incomes which can be derived from sustainable management of transboundary natural resources.

AIM AND OBJECTIVES

Aim

To assess the impact of transboundary natural resources management approach on the livelihood of resource poor farmers on the Zimbabwe- South Africa border.

Specific Objectives

The following specific objectives guide the discussion in this study: assessing the rational for transboundary natural resources management and factors which are deriving the emergence of specific initiatives; assessing the emerging challenges in the design and sustainability of transboundary natural resources management initiatives in the area, and generating recommendations in terms of key needs and the appropriate roles for institutions involved in the transboundary natural resources management.

JUSTIFICATION

The research gathered information on the impact of TBNRM on the redistribution of rights and benefits to the local communities on the Zimbabwe-South Africa border. This information is very important to stakeholders in natural resources management. These stakeholders include the South African and Zimbabwean governments, quasi-government institutions such as local authorities and the national parks. These institutions will see the importance of redistributing rights and benefits to the local communities and involvement of beneficiaries in TBNRM initiatives. The communities will also find this information handy as it will highlight their entry point in TBNRM initiatives. The current situation that is obtaining in TBNRM, where rights and benefits are not redistributed to the local communities is not healthy as it is a potential breeding ground for resource degradation along border areas.

CONCEPTUAL FRAMEWORK

The Origin of Transboundary Initiatives

Many communities have been implementing TBNRM at the local level for a long time, and such arrangements have been facilitated by cultures which straddle international borders. International borders often dissect ethnic groups and the traditional natural resource management systems which were in place before colonial boundaries were imposed. International politics have in some cases eroded these traditional systems

The Albert National Park was the first park crossing international borders in Africa, established by the Belgians colonial regime in 1925 to conserve natural resources occurring in two nations. It spanned the colonial states of Rwanda-Burundi and the Congo. After independence in the 1960s, the Rwandan part became Parc des Volcans (Volcanoes National Park), while the Congolese became Virungu National Park (Hangula, 1993).

The world’s first International Peace Parks was established in 1932, linking Glacier National Park in the United States with Waterton Lakes National Park in Canada. A Memorandum of understanding (MOU) existed between the park departments of both countries and management was implemented through a combination of internal and transboundary

management initiatives (Ashton, 2000). The two parks were managed separately; they cooperated on joint nature tours, search- and- rescue operations, and fire management. Prior to that Poland and Czechoslovakia had signed the Krakow Protocol in 1925 to set a framework for establishing international cooperation to manager border parks (Boadu, 1998). However, the first of these parks was not established until after 1945.

The number of Transboundary Conservation Areas (TBCAs) grew gradually in the second half of the twentieth century until around 1990, at which point it started to increase rapidly. By 2001 the number of identified adjoining protected areas complexes had more than doubled since 1990, to 169 in 113 countries including 657 individual protected areas (Fall, 1999). As of 2001, in Africa alone there were 35 complexes involving 34 countries and including 148 individual protected areas (Goldman, 1998). With this increasing interest and building on the meeting held in 1995 by the IUCN'S World Commission on Protected Areas (WCPA) and Australian Alps National Parks – IUCN/WCPA generated materials outlining guidelines for Transboundary Protected Areas at three meetings convened in Somerset West, South Africa (1997), Bormio, Italy (1998) and in Gland, Switzerland (2000) (Fall, 1999). In 1999, the first post colonial African Transfrontier Park was created when Botswana and South Africa signed a bilateral agreement for the Kgalagadi Transfrontier Park Foundation, a joint management agency was set to implement some activities jointly, while others would be done by each nation independently.

At the same time, integration of economic development on a regional level has become more and more important across the world, particularly over the past two decades. In Africa, this is seen through the development of regional institutions such as the Economic Community of West African States (ECOWAS), Central African Economic and Monetary Community (CAEMC), the revised East African Community (EAC) and the Southern Africa Development Community (SADC) (Helm, 1998). As expressed by SADC (1994), regional cooperation is not an optional extra; it is a matter of survival. While the primary reasoning for the establishment of these institutions is economic development, given people's dependency on natural resources, increasing attention is being given to integrating broader environmental concerns and natural resource management under these agreements.

The increased interest and need for TBNRM is in line with broader landscape priority-setting exercises developed and undertaken during the past few years by international conservation organisations and others, which recognise the ecological need to work on larger scale (Hammer and Wolf, 1997). Increased interest is also reflected in the incorporation of transboundary aspects in certain international conventions, and a number of regional and African conventions and agreements. Building on national activities, originating from regional institutions, or stimulated by international conventions or interest by donors and international Non-Governmental Organisations, many transboundary initiatives are underway.

In Southern Africa, the demand for resources has increased as a result of population growth, economic liberalisation and infrastructure development. In the 1970s and 1980s, formal sharing arrangements were generally not necessary (due to abundance of resources) or as enforceable (due to poor ability to access and regulate rural behaviour) as they are now. New developments in Southern Africa have led to the emergence of several identifiable types of formal TBNRM initiatives which aim at improving management of transboundary natural resources (Fakir, 2000). These initiatives comprise of Transfrontier conservation areas (TFCAs), spatial development initiatives (SDIs) and Regional Authorities and Protocols. The following table shows the number of these initiatives in the SADC region.

COUNTRY	TFCA	TBNRM	SDI
Zimbabwe	2	3	3
Botswana	0	4	2
Lesotho	1	0	0
Mozambique	3	3	5
Namibia	2	4	3
South Africa	6	2	6
Zambia	0	3	1

Adapted from Jones and Chonguica, 2001

The TBNRM initiatives are seen by many as valuable experiments for building past experience of CBNRM in Southern Africa. TBNRM initiatives are expected to enhance biodiversity conservation and creating economic opportunities for the communities.

Stakeholder Participation in TBNRM

Stakeholder participation is an important aspect of TBNRM. Although initially it may require considerable financial and time investment, it ensures that key individuals, groups and organizations are involved in an impartial, democratic and valuable natural resources management process. Failure to establish stakeholder involvement risk losing the opportunity to ensure stakeholder ownership of the process, and undermines the long term feasibility of the TBNRM initiatives (Ali, 2007). It may ultimately weaken the resource base itself.

In TBNRM process, the participation of stakeholders occurs both in country and across the border. In country, interests, and roles and responsibilities are defined in a parallel exercise in the participating countries. Cross border exchanges involve key counterpart organisations as well as representatives of all stakeholder groups across the border, meeting and establishing a common TBNRM vision. Both in country and across the border interactions should be maintained throughout the processes, differences in culture, language, policy environment, as well as the inevitable increase in the number of parties, may pose additional challenges to partnership among stakeholders (Chenje, 2000).

The natural resources base, systems of land and resource and resource tenure determines the players to be involved in a TBNRM process. Organisations and individuals laying claim to all or part of the land and resources in various ways (including historical, political, cultural, economical and spiritual) should be involved early in TBNRM process, so that they have ownership of it (Hamner and Wolf, 1997). These include local communities and private land owners. To facilitate efficient distribution of benefits, it is important to understand important stakeholders and to analyse the decision and power issues at play in a given situation. Myers (1997) identified the following categories of stakeholders:

- Those who directly influence the outcome because of their mandate or close interest and those who ultimately inherit the program once it has been developed;
- Those who interact with the developing program, and maintain close contact as it develops such as focal interest groups, and

- The general public which may need to be kept informed, but may not be directly affected.

Stakeholder analysis should take into account the prominent and obvious players as well as those groups whose influence on the resources has historically been segregated, owing to their low level of economic power and cultural and political influence (Westman, 1997). Implementers should also identify those groups or individuals who are likely to resist TBNRM process. It is important to ameliorate perceived threat early on, and endeavour to establish constructive engagement with opposition stakeholders. It is also vital to avoid a simplified categorisation of stakeholders such as 'the local community' or 'the private sector', and to identify inter – and intra – dynamics within stakeholder groups (D'Huart, 1989).

The range of levels involved determines the level of stakeholders to be involved in the process on both side of the border (such as local, district and line ministries). In addition each purpose within the transboundary should further dictate appropriate categories depending on the type of objectives. Initiators of the TBNRM process have to explore incentives with key stakeholders in order to encourage the idea following an assessment and pronouncement on the TBNRM approach (Fall, 1999). Stakeholders should identify and spell out individual roles and responsibilities early in the process.

Constraints in TBNRM

TBNRM initiatives do not happen in an isolated ecological framework. They are developed and implemented in a broad framework, which includes social, economic, political and institutional aspects as well (Danby and Slocombe, 2005). Within this broad framework there are both in-country and international aspects that have a direct or indirect ramifications on the success of transboundary initiatives. While it is not always possible or easy to change or manipulate this broad framework, it is necessary to be aware of the opportunities, enabling conditions and constraints imposed by it in order to assess the likelihood of achieving TBNRM objectives. Constraints include intrinsically low productivity and value of the natural resource base, ecosystem services, and biodiversity, which may mean that transboundary collaboration, is not worthwhile (Fakir, 2000; Ashton, 2000; Griffin and others, 1999). While restoration activities are often possible for degraded areas, it can take much time, effort and expense to repair severely damaged habitats and this can constrain TBNRM success. The presence of economically important animal diseases in a region may limit TBNRM collaboration owing to the necessity of control measures. The major constraints in TBNRM include the following:

Participation of Key Stakeholders

Lack of participation of key stakeholders also impedes on success of TBNRM initiatives (Hughes, 2003). It is important that all key stakeholders participate in the TBNRM process, from the planning stage through implementation. However, if the stakeholders have different degrees of empowerment and some are poorly organized there can be severe consequences. Organization in communities is principally imperative, in order to be able to negotiate and work together effectively with other stakeholders within and among countries. A weakly organized community can become marginalized, and thus neither contributes its existing traditional knowledge fully nor benefits from TBNRM (Hardin, 1968). In particular the private sector has difficulty in working with weakly organized communities, since it usually wants results faster than NGOs and government and does not have time to help communities to build capacity. If these problems exist within a country, it is unlikely that transboundary management will be successful.

Ownership of the TBNRM Process

Who and what drives the process and who facilitates it have a major impact on the success of a TBNRM initiative (Ali, 2007). TBNRM initiatives driven only by the interest of a donor or NGO are likely to be less sustainable than those that build on existing activities and structures. TBNRM imposed from above on the local level is less likely to succeed.

Lack of Trust

Lack of trust among stakeholders is a serious constraint. This includes trust among stakeholders on the same side of the border (e.g., government and communities; communities and private sector; NGOs and government) and among stakeholders across the border (Goldman, 1998). Trust takes time to develop and cannot be rushed. In particular, it takes a long time to develop community trust and participation.

Cultural Heritage and Language

Language barriers may constrain TBNRM. For example, transboundary partner countries with different official languages may have severe communication problems, and incur additional costs for translation and dual language documentation. This occurs on the margins of the Anglophone and Francophone blocks of countries, with all the Lusophone countries and their neighbours, and is a particular predicament on the West African coast where English- and French-speaking countries alternate (Applelgren and Klohn, 1997). The cultural heritage of local communities may become subordinated in the TBNRM process; communities value cultural as well as biological heritage, but other TBNRM stakeholders value the biological or economic side more and may force this at the expense of cultural factors.

High Costs Relative to Benefits

Transaction costs for TBNRM initiatives are often high (Griffin and others, 1999). The benefits should be greater than the costs in order to justify working across borders. The net benefits of transboundary collaboration also should be greater than the net benefits of working separately at country level. While initial activities and start-up costs may need to be financed by external sources, longer-term sustainability depends on the bottom line: do the benefits outweigh the costs? Costs and benefits should be analyzed before embarking on TBNRM projects. It is necessary to identify all costs and benefits, not only those that can be easily quantified in financial terms. It is important to review indirect use values such as ecosystem services, and nonmaterial values such as cultural, scientific and intrinsic values (Helm, 1998). It is also important to look at the distribution of costs and benefits across the range of stakeholders, on both sides of the border. Inequitable distribution of benefits is a major constraint to the success of initiatives. Unfortunately this type of comprehensive economic analysis is difficult. Natural resource economists are still developing tools and techniques that can assist in the process. There is an urgent need to adapt existing valuation techniques to TBNRM situations, developing a valuation system that stakeholders can participate in and understand, and where linkages among resource production, ecological services and different types of economic benefits are understood (Hangula, 1993).

Economic Development

Differences in stage of development among neighbouring countries can result in analogous differences in priorities for TBNRM objectives, which may not always be compatible (Chenje, 2000). Countries with more highly developed economies (e.g., South Africa and Nigeria) may overshadow their neighbours and make collaboration difficult. Similarly, differences in economic powers of individual stakeholders may cause difficulties. TBNRM programs often have limited economic opportunities. Some rely on tourism to encourage economic development and sustainability of the venture (to

date this is more the case in Southern Africa than in the other regions). However, heavy reliance on tourism alone creates a very narrow economic base for TBNRM.

Trade

Trade can be an important part of TBNRM. However, there are many restrictions and disparities that have a range of effects on the viability of TBNRM. They include the following: National financial policies that impose barriers to free trade or subsidize land-use practices that are inimical to sustainable natural resource management; market distortions may be caused by outside forces: for example, the European beef market competes with West African producers to supply coastal countries in West Africa (Goldman, 1998). The coming of globalization and promotion of free trade policies may enhance this; and disparities in tariffs, taxes and prices among countries, which create opportunities for smuggling and re-exportation of natural resources.

Inadequate Political Will

Insufficient political commitment to transboundary initiatives—at local, national or regional levels—can impose major constraints to TBNRM success (Ashton, 2000). The importance of trying to find win-win situations among stakeholders cannot be overstressed, but in some cases it is not possible. There may be other agendas and vested interests, for example, in favour of other land uses. Corruption may preclude the transparency, openness, devolution of power and equitable benefit sharing that are necessary for successful TBNRM. In this case, improved internal governance may be a necessary precondition before TBNRM can work.

National Sovereignty and Security

Issues of national sovereignty and security can be constraints to TBNRM. These include actual or perceived dominance by one country over another (perhaps in terms of size, financial means and the like); concern about losing control of sovereign territory; and security risks (including the risk of animal diseases spreading across borders) (Helm, 1998). If governments are uneasy about TBNRM collaboration because of security or sovereignty issues, higher levels of government may insist on being involved. However, the fact that diplomats and officials at higher levels of government place high priority on the resolution of transboundary security issues may sometimes open doors and opportunities for TBNRM to hasten the process and increase the chances for success

Insecurity and unrest pose extra challenges for TBNRM. If a government is not in control of areas near its country's borders and there is a breakdown of social, economic, political and administrative structures, there may be nobody for a neighbouring country to collaborate with at the local or national level (Boadu, 1998). TBNRM collaboration is likely to be very low on the list of the beleaguered government's priorities. There are also risks to the neighbouring country. Control of shared natural resources may collapse, and illegal exploitation may damage the resource base. Problems may spread across the border: illegal extraction may occur on the peaceful side; refugees may cross the border and cause impacts; armed insurgents may cause instability; and animal diseases and invasive species may spread from one country to others owing to breakdown of controls. Collaboration during times of instability is not impossible (as has been very ably demonstrated by the continued TBNRM collaboration in the Virungas despite 10 years of insecurity), (Burt, 1994).

Devolution, Decentralization and Empowerment

As for NRM within a country, TBNRM can be constrained if devolution of control over land and resource use is inadequate for those at lower levels to play their roles effectively. In particular, local communities must have adequate empowerment and incentives for long-term participation. TBNRM at a formal scale tends to increase the involvement of upper government levels (e.g., the line ministry in each country and sometimes multiple government ministries), (Fall, 1999). There is a risk that these levels will exert influence and control that is not in the best interests of local communities or private landowners. Other groups such as private sector, NGOs and donors may also drive the TBNRM agenda in a way that conflicts with local interests. The situation is often complicated by the existence of a dual tenure system (state and traditional), sometimes with lack of clarity over their juxtaposition (Fakir, 2000). In addition to community empowerment, it is important for central government to devolve adequate power to local government in order for it to undertake transboundary collaboration. Buy-in of private landowners to the transboundary process is also necessary, and national-level agendas do not always take this fully into account.

Equity across Borders

Equity issues across borders may limit the success of TBNRM unless they are resolved. Benefits have to be shared, and perceived inequities may seriously constrain collaboration to manage shared resources. Types of benefit-sharing arrangements include establishment and implementation of quotas for harvesting of shared resources and revenue sharing (as found in, for example, the Kgalagadi Transfrontier Park), (Hamner and Wolf, 1997).

Lack of Enabling Policies and Legislation

Inadequate policies and legislation to support sustainable natural resource management, as well as policy and legal inconsistencies among countries, can severely limit the effectiveness of collaboration. Examples include situations where tenure and user rights have not been devolved to local authorities or users, or where regional planning initiatives have not incorporated NRM adequately (Hamner and Wolf, 1997). Sometimes these problems have their origins in the legacies of colonial legislation. Policies may also promote perverse incentives, for example, land uses in marginal areas that are not compatible with TBNRM. National legislation rarely makes provision for TBNRM (although South Africa is an exception).

Capacity

Weak capacity on both sides of the border to manage natural resources will not result in good TBNRM. Uneven capacity, with only one partner having high capacity, is likely to limit success, affecting the project's ability to make lasting partnerships. This refers to both individual and organizational capacity—the latter referring to government institutions, NGOs and civil society (Ashton, 2000). Finally, the lack of a process for transboundary planning or coordination can challenge people's potential to contribute significantly to TBNRM.

Constraints and enabling conditions are unique to each TBNRM situation, and often cover a wide range of ecological, social, cultural, economic, financial, political, policy and institutional factors. It is very important to understand and analyze constraints and enabling conditions for TBNRM in order to review which constraints are the main limiting factors, assess whether it is practical to tackle them, or to choose another course of action. It is impractical to try to create all enabling conditions before embarking on TBNRM; it is more realistic to start small on activities that can be done easily, and work to overcome constraints and create enabling conditions along the way.

RESEARCH METHODOLOGIES

The study used both quantitative and qualitative research methodologies. The questionnaire was the only quantitative data collection tool used to obtain participants' background information such as age, gender, educational level and marital status. In the qualitative methodology, a number of methods were used which included semi-structured interviews with key stakeholders such as local committee members, national parks employees, rural district council and Non-Governmental Organisations. Semi- structured questionnaires were administered to a total of 130 randomly selected respondents. The study was stratified into ten administration units and the number of respondents selected from each unit ranged from 12-15, which was relative to the size of its population. Furthermore focus group discussions were conducted in seven selected units and information obtained from group interviews were analysed at the spot by recording consensus conclusions from participants. The Statistical package for social sciences (SPSS) software programme was used to analyse the questionnaire responses. The generated statistics tables and associated graphs were used in the interpretation of results.

RESEARCH FINDINGS

Age-Sex

The research gathered information from both sexes but females constituted the majority compared to their male counterparts (66 % as compared to 34%). Their ages ranged from slightly below 30 years to 60 years. This showed the ages of respondents were still economically active and no respondent was in the retirement age or minor. The 51 – 60 years age group was the largest that constituted 36% and the 31-40 years age group was the second largest constituting 28%. The 41-50 years age group and 30 years and below constituted 23% and 19% respectively. Those whose ages were below 30 years had ages ranging from 26-29 years. Table 1 shows the age-sex profile of respondents.

Table 1: Age-Sex Profile of Respondents

Age Group	**Males**	**Females**
25-30	8	11
31-40	5	23
41-50	7	16
51-60	14	14
Total	**34**	**66**

Source: Survey, 2009

Academic Qualification of Respondents

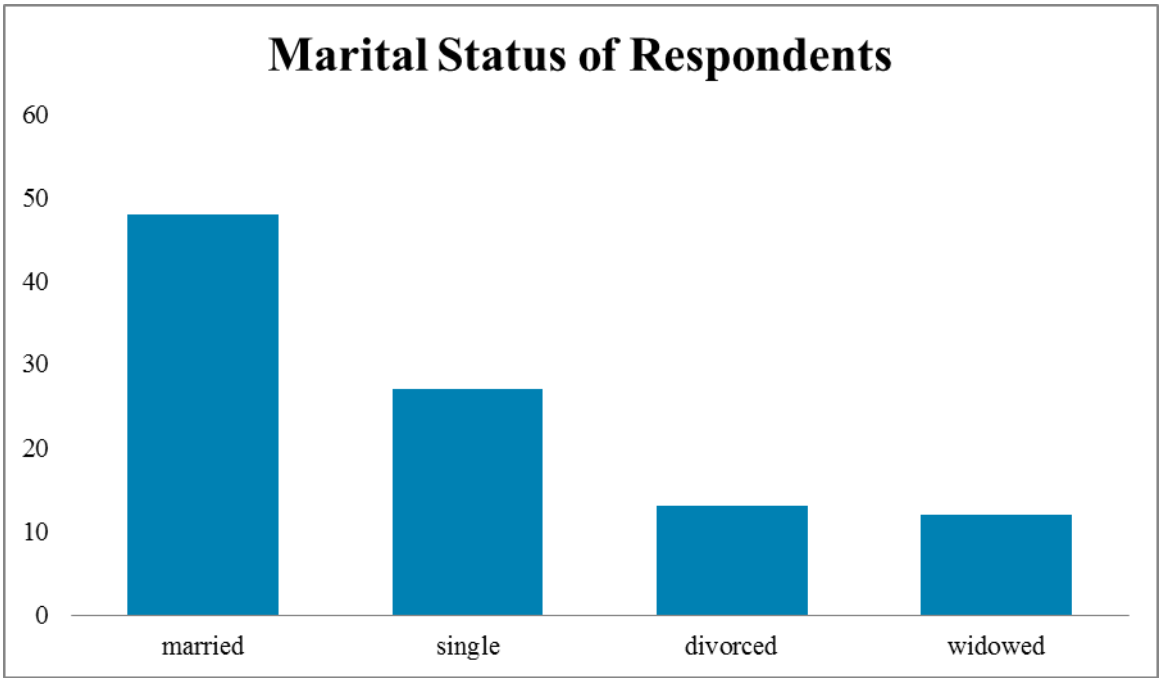
Respondents were of varying background. It included those who had no formal education, those with elementary education, to holders of tertiary education. The respondents showed that a number of them had acquired meaningful

education, as 86% of them had at least Zimbabwe junior certificate level of education; of this 49% had at least attained ordinary level. Only a few had no formal education (14%) which shows that the majority of respondents were literate and therefore could read and write. These people can be trained to run projects effectively if the program is planned well. Some of them who had tertiary education could be trained to take positions of responsibility so that they can lead the project. TBNRM initiatives should appreciate that communities are better placed to manage resources around them and communities can cooperate where the realise benefits accruing to them.

Marital Status of Respondents

Respondents were drawn from varied marital status, which ranged from married, widowed, divorced and singles. The majority of them were married (48%) and the singled constituted a significant percentage (27%), of which males were the majority (20%). The widowed and divorcees constituted a combined 25% (13%and 12% respectively). Figure 1 shows the marital status of respondents.

Figure 1: Marital Status of Respondents



Source: Survey, 2009

Management and Redistribution of Privileges and Benefits of TBNRM

The management structure involved various stakeholders, which included the South African and Zimbabwe governments, local communities, rural councils and their funding organisations. In terms of numbers the local communities on both side of the border constituted the majority (54%), but none of them hold a significant position in the management structure. The locals are assigned very menial responsibilities. Local members who are in the management committees are usually kept in the periphery by assigning them insignificant responsibilities like committee members, secretaries, wardens and attendants. The central government on the Zimbabwe side, through the rural district councils retains all other important posts. The government through its institutions retains the chairman, treasurer and the secretary post. The

existing organisation has little space for effective distribution of rights and benefits. It seems to be a deliberate attempt by the central government to take away the management of local resources from the local people. The existing organisation structure allows meetings to go ahead with or without the local communities. Thus, the local communities are not contributing to most of the decisions that are made in the transboundary natural resources initiatives. Communities are compelled to accept decisions which are made by the government.

Decisions which affect sharing of rights and benefits are all made at council level without the consultation of the local communities. The management structure which exists does not fulfil the thrust which aims at distributing of rights and benefits to the local communities. Local communities are important stakeholders in such projects and their participation is critical. The marginalisation of the local communities is taking place despite the existence of people with enough capacity to take such responsibility. Capable individuals are denied the opportunity to participate because the organisation has marginalised the local communities. Empowerment of the local communities can result in the locals taking responsibilities that remain located at their rural district council and their funding partners (D'Huart, 1989). Administration of the TBNRM initiative and receipting of proceeds is done by the central government, through the rural district council which is located 250km away from the initiative. It was more ideal to create offices at the sub-offices, so that local communities can have a chance to see what is happening in the project. In the TBNRM projects, communities are playing an important role in safeguarding their heritage but benefits are accruing to outsiders. Local communities are just custodians of resources that they benefit very little. This situation has the potential of exacerbating environmental degradation. In order to foster proper sustainable utilisation of resources, locals should be empowered to administer their resources and this can be done through total empowerment program that witness local people make decision at the local level (Danby and Slocombe, 2005). This should be accompanied by clear property ownership regime characterised by structures of ownership of resources with unambiguous management rules and regulations and an apparent policy on sharing incentives.

EMERGING PROBLEMS IN TBNRM

The study revealed that TBNRM initiatives, like past CBNRM initiatives are attempting to convert rural areas into tourism destination. Under this approach, governmental and donor agencies anticipate rural communities to convert much agricultural land to wildlife habitat, and use the economic benefits from eco-tourism and big game hunting to by food and other products. However, the shift is currently presenting livelihood challenges in the study area. Efforts of local communities currently engaged in organic forms of community-based natural resources management that offer opportunities to cooperate with the cross border communities are severely constrained. Furthermore, the shift from agriculture to tourism as a source of livelihood makes communities vulnerable to changes in the tourism industry which are outside their control. The decline in tourism since 2000 exposed communities to food insecurity due to lack of revenue from tourism. It is therefore fundamental to question the rational for communities to continue relying on a source of livelihood that is largely outside their control.

TBNRM initiatives emphasize on generating income from wildlife and not from livestock and crop production. TBNRM in the study area have underscored more on raising income at the expense of food production. The contemporary argument that wildlife based tourism is more viable and profitable than other land–use systems has led to the decline in investment, extension and technology development for the rural based agricultural production systems (Hughes, 2003).

Furthermore TBNRM in the study area resulted in social disruptions and displacement of people when land was partitioned to pave way for wildlife.

The study revealed that one of the notable failures of CBNRM which persists in the case of TBNRM has been poor transfer of rights over land, resources and decision making powers to the local communities. In the study area, non – governmental organisations have been instrumental in driving the TBNRM agenda towards greater local control over natural resources (Myers, 1997). However, despite these attempts transfer of rights to local communities has been limited, partial and mainly designed to eradicate conflicts between the state and rural communities. This trend has been necessitated by colonial and post colonial legacies which relied on manipulating and disempowering local institutions and communities. Furthermore, a lack of commitment by the state to release power to local communities, regardless of policies advocating devolution has fuelled a trend towards centralisation of decision making.

The research noted that under such conditions TBNRM will not go beyond the unfulfilled promises of CBNRM. It is vital to note that the little gains made under CBNRM approach, with respect to community participation and decentralisation will be lost under the TBNRM, due to the centralisation of decision making by the state. The TBNRM approach is not different from the colonial approach which set aside 'protected areas', where locals where prohibited from harvesting natural resources. Local communities were moved out of the 'protected areas' and wildlife fences were erected. While the erection of fences was necessary to minimize the 'poaching' or human-animal conflicts and reduce spread of diseases across frontiers, the social, religious and economic ramifications of erecting fences were devastating on local communities. TBNRM should not isolate local people from the resources but rather define the relationship between the community and the resources (Chenje, 2000; Fall, 1999; Helm, 1998). Since past CBNRM projects have failed due to non – participatory and centralisation of decision making, community empowerment and decentralisation should be considered as central to the success of TBNRM in the study area.

The local communities in the study areas raised a concern that most of the projects which are being promoted under TBNRM are reinforcing the colonial models of land-use planning and prior allocation of land rights. Participants noted that when TBNRM projects were initiated, resolutions were made around issues such as animal corridors and re-classification of land uses without comprehensive consultations with local communities who were directly affected by the decisions. Slight consideration was paid to the latent impacts of TBNRM on the poor, such as compulsory removal and social dislocation (Goldman, 1998). Participants noted that TBNRM projects should become vehicle for redistribution of rights rather than reinforcing the legacy of land alienation and inequitable distribution of resources. It was noted that if this current situation persist income disparities between the rich and the poor will continue to widen and conflict will eventually become inevitable. If the elites continue to dominate the TBNRM projects then the very legitimacy of TBNRM initiatives is likely to bring undesired results. TBNRM should actually be viewed as the chance to start to tackle the contentious issue of redistribution of rights and benefits considering the colonial legacy which appropriated resources (Burt, 1994).

LESSONS LEARNED AND ISSUES FOR PROMOTING NATURAL RESOURCES STEWARDSHIP THROUGH TBNRM

Unless stakeholders pay attention to the basic principles, communities on the border are likely to experience disillusionment with TBNRM, in the sense that Fakir, (2000) aptly describes for CBNRM. TBNRM in the study area

should avoid forcing people into ambiguous partnerships and imposing itself as the way forward for conservation and as a solution to poverty and economic development in the border areas. TBNRM projects should have legitimacy with a clear methodology that creates space for broader participation of stakeholders, especially local communities, and must offer a real opportunity to redistribute property rights and tangible benefits. While trying to take opportunities presented by TBNRM, stakeholders must be cautious and avoid marginalisation of local communities in pursuit of the mega-scale of TBNRM. The real danger being posed by TBNRM approach is the isolation of the poor by pooling common transboundary resources while de-facto privatising associated benefits. The absence of a system of community rights and the non-acknowledgement of historical rights undermine community interests and rights (Hangula, 1993).

The success of TBNRM in the study area is undoubtedly influenced by bi-lateral relations, trade, population dynamics and their influence on production and economic trends, inequities and poverty, and local commitment to finding sustainable solutions to the common heritage. Stakeholder should formulate clear and accepted modalities on how benefits are generated and distributed (Boadu, 1998). If there is no perception of equitable distribution of the benefits, the initiatives may suffer from lack of local support. Closely linked to leadership and benefits sharing in TBNRM initiatives are the issues of accountability between collaborating stakeholders. TBNRM initiatives in the study area have created new and additional demands on administration of natural resources; policy development and harmonisation; consultation processes; and on the ground implementation that is not confined to the national level. Therefore, the two nations have to develop a new system capable of operating in a complex and multi-layered policy environment.

TBNRM offers potential opportunity in Southern Africa for resolving inequity in the distribution of natural resources, and associated benefits. The history of natural resources in both Zimbabwe and South Africa is characterised by expropriation from local communities during the colonial period (Hammer and Wolf, 1997). Natural resources continue to be inequitably distributed and dominated by very few land owners with a growing tendency towards privatisation. Broadening the benefits to the local communities from both countries' natural resources is unlikely to happen without addressing the skewed nature of land ownership. TBNRM initiatives represent an opportunity to address the issue of skewed distribution of land, resources, and associated benefits.

Since TBNRM is costly and time consuming, it is crucial to undertake an adequate assessment of TBNRM feasibility before embarking on transboundary collaboration. It is best to work at the lowest transboundary level(s) possible. A bottom-up approach has the greatest chance of resulting in participation, buy-in and ownership of the process at the local level where the resources are managed. Involvement of higher levels can change over time, and as needed (Ashton, 2000). TBNRM must be based on trust and partnerships. Trust takes time and patience and cannot be rushed. TBNRM in the study area should be a flexible process evolving on the basis of real need. It is important to monitor and evaluate the effectiveness of collaborations frequently, and adapt as appropriate. Learning should be done both internally and jointly across the border, which requires transparent sharing of information. This includes comparing TBNRM results with those that might have been gained through internal natural resource management alone, to assess whether TBNRM participation is worthwhile.

The research noted that cooperation across borders increases the complexity of stakeholders. Diversity of interests is too high, covering ecological, socio-cultural, economic, institutional and political issues. Ensuring adequate stakeholder participation and seeking win-win situations take time but are essential for success. Furthermore, TBNRM in the study area need to be value-added product and should strive for the maximum output with minimum input. Transaction costs

must be kept as low as possible, otherwise the endeavour will not be worthwhile. In addition stakeholders need to gain additional net benefits. In the right situations, TBNRM can increase the efficiency of managing and monitoring natural resources through avoiding or reducing duplication of effort creating economies of scale, and enhancing economic opportunities such as increased tourism potential (Fall, 1999; Applelgren and Klohn, 1997).

TBNRM in the study area must increase the efficiency of natural resources management in order to be worthwhile. Synergies are essential for successful TBNRM (the whole must be greater than the sum of the parts; otherwise individual countries are better off managing their resources independently). In the right situation TBNRM can increase the efficiency of managing and monitoring natural resources through avoiding or reducing duplication of effort, creating economies of scale, and enhancing economic opportunities such as increasing tourism. However TBNRM requires additional investments of money and time. Funding for TBNRM should be incremental, and not at the cost of internal natural resource management.

Political and long term commitment are essential for successful TBNRM. Good internal political relations can facilitate TBNRM. Good internal political relations should facilitate success of TBNRM initiatives in the study area. Collaboration can resolve local-level cross border conflict by finding common ground and shared objectives.

The research further noted that TBNRM at a formal scale tend to increase the involvement of upper government levels, with a risk that these levels will exert influence and control that is not in the best interest of local levels. Good governance within a country is therefore essential for successful TBNRM including subsidiary and two way transparency and accountability between higher and lower levels in control of land and resources. Harmonisation of relevant policies and legislation across boundaries can be an important enabling condition for TBNRM. Despite their good potential to facilitate TBNRM some of the international environmental conventions are not playing a strong role (Chenje, 2000).

TBNRM in the study area should work through existing organisations where possible. Capacity is often a constraint and weak national structures cannot create strong TBNRM. Outside facilitation may be able to help build capacity. TBNRM is sometimes constrained by government’s narrow natural resources management approach. The research further argues that TBNRM’s potential need to be further promoted. Greater collaboration and discipline is needed to enhance the effectiveness of TBNRM, and it should be mainstreamed in bi-lateral forums. As new experiences are gained, they need to be analysed and the existing of TBNRM expanded. Further studies are recommended on how TBNRM is influenced by political relations, and more specifically on the potential role of TBNRM in poverty alleviation.

Experience in Africa suggests that it is best to work at the lowest transboundary level(s) possible. Many successful transboundary initiatives have worked from the bottom up, starting at the local level and involving higher levels as and when needed to achieve objectives and create enabling environment (Hangula, 1993). A bottom-up approach has the greatest chance of ensuring participation, buy-in and ownership of the process at the local level where the resources are managed, building on existing practices and common cultures it can create a solid base of trust at the local level for future collaboration, where people are motivated to find practical and realistic solutions.

External social, economic and political conditions are changing, all of which affect the shared natural resources. Approaches to TBNRM need refining in light of changing background conditions as well. Adopting to change necessitates working flexibility but staying within an overall strategic framework for collaboration, and keeping a joint vision firmly in sight. Communication is also essential across the border, within both countries, within and across levels

and across institutional and technical sectors. This includes sharing of information in a transparent and timely way (Chenje, 2000).

CONCLUSIONS

The rationale for TBNRM is strong and there is growing interest in the subject in southern Africa. Opportunities for TBNRM development are being explored and recognised rapidly in many practitioners and decision makers. At the same time, the constraints are numerous and varied. Transboundary initiatives are likely to remain at a small and less formalised level rather than becoming larger and more formal. Capacity building, flexibility, experimentation, adaptive management and learning and sharing of experiences are important ingredients in TBNRM development in Southern Africa.

The wide variety of users and multiple functions of natural resources in transboundary areas attest to the important of these resources in Southern Africa. Sustaining the productivity of resources in transboundary areas remains an essential task given the growing scarcity and increasing demand for these resources. Institutional arrangements for governance must take into consideration interest of various stakeholders, use and management structures of resources in border areas. Past experience has shown that centralised governance units, with an ethic of regulation and control, are ill-equipped to regulate and manage multi-product, multi-participant resource systems with fluctuation benefit streams. Effective management of transboundary resources requires an appropriate mix of local and state institutions and organisations. The exact mix will vary according to particular circumstances, but the emphasis and focus would need to remain on the revitalisation of local institutions and organisations. The variety of response capabilities needed to manage complex, multiple resource use systems can only be provided through institutional arrangements developed at multiple levels and made to function in a complementary fashion.

In Southern Africa, TBNRM has become a new approach in natural resources management and the challenge confronting stakeholders is not to frustrate the progress to date but rather to ensure that measures are put in place to ensure that the locals benefit from the resources which surround them. The solution to efficient natural resources lies in redesigning laws and policy, addressing conflicts between community and private interests, confusion around the organisational roles and responsibilities of the state, local versus international NGOs, donors, and the power imbalances amongst stakeholders. It is clear that in the context of resource development on the South Africa-Zimbabwe border, effective approaches to management of transboundary resources are urgently required.

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