

# **Restructuring the Commons: Water reforms in Southern Africa in the context of global water resources management paradigm shifts**

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## **Abstract**

A number of countries in the Southern African region have been grappling with the demanding task of reforming their water sectors. Closer analysis reveals that the changes taking place across the region are part of global water resources management paradigm shifts aimed at ensuring self-sustainability in the water sector, equitable allocation and distribution of the resource, decentralized and participatory management; and integrated water resources management. An exploration of the nature of reforms in Malawi, South Africa and Zimbabwe reveals that international agencies, international events and global

shifts in common property management theory are playing a big role in shaping changes that occur at national and sub-national levels. It is argued in this paper that efforts being made to reform the water sector in the Southern African region have their origin in international conventions and shifts in water resources management thinking. The rationale behind the reforms is closely linked to new global water resources management strategies and philosophies. Reforms in Malawi, South Africa and Zimbabwe provide sufficient case material to illustrate this. The water reforms in these countries demonstrate that community-based natural management resources is quite complex and cannot be easily resolved through globalization processes. There is need for a comprehensive understanding of different social, political and economic factors that must be addressed at the local levels as well as the institutional development processes involved.

### **Introduction**

Water plays a vital role in the social and economic development of society. Increasing demand and competition for water and increasing scarcity due to climatic changes have led to the initiation of water sector reform programs in most countries of the Southern African region, Malawi, South Africa and Zimbabwe included. Issues of integrated management of water and land resources, recognizing the economic value of water, equitable allocation of water, and sustainable utilization of the resource are some of the objectives at the center of water reforms in most of the countries. It is envisaged that these objectives will be realized through decentralization of management responsibilities from the government to community-based management institutions.

These water reform programs are closely linked to global paradigm shifts in natural resources management thinking and economic restructuring exercises. The early 1990s witnessed concerted efforts at the global level to come up with workable solutions to environmental degradation problems and increasing levels of poverty. The search for solutions revealed the need to focus more emphasis on the appreciation of the cross-cutting natural resources management complexities that must be faced from the local up to the global level. This view is also shared by scholars like (Derman et. al. 2000:1) who argues that, management of natural resources, including water, requires an understanding of the complex intersections of global, national and local management regimes situated within a context of rapid economic, political and institutional transformation.

The search for solutions has also brought about a shift in water resources management thinking from a supply to a demand-oriented focus. A summation of the paradigm shift indicates that motivations underlying this change in emphasis include the need to reduce the size and costs of government, decentralizing management authority, encouraging stakeholder participation in resource management, cost recovery, promoting greater social equity in access to water and conservation of the resource (Nhira and Derman 1997; Robinson 1998; Winpenny 1994; World Bank 1993). Therefore, water reform programs initiated in Malawi, Zimbabwe and South Africa may be viewed as a response to domestic as well as international philosophies in favor of decentralizing water management to the user levels. Water reform experiences throughout the world however,

point to the need for a closer analysis of the applicability of global resource management prescriptions to the developing countries.

### **Theoretical framework of the paper**

This paper is grounded in a community-based natural resources management (CBNRM) theoretical framework. This framework provides an analytical approach that views users as the focal point for sustainable Natural Resources Management (NRM). Without user cooperation and participation, the chances of successful natural resources management diminish. This approach is manifest in literature from scholars like Murphree, 1991 and Murombedzi, 1991, who argue that in managing natural resources, the unit of proprietorship should be the unit of production, management and benefit sharing. It must also be as small as practicable and the users must perceive management of the resource in question as beneficial to them if they are to be motivated to manage the resource sustainably. Since the reforms seek to encourage devolution of management responsibility to communities, the paper assumes that communities, with the help of newly created institutions, are going to be the unit of proprietorship, production, management and benefit sharing. Woodhouse, Bernstein and Hulme (2000:13) state that as well as fitting the rhetoric of Agenda 21, the CBNRM approach is attractive to the minimal government stance of international aid agencies, which could be formulated as: "not state but market, and if not market then 'civil society' or community."

The CBNRM framework relates institutional dynamics to environmental conservation and management. In this case, institutional evolution is linked to water resources management at the local levels. Improvement in the local water management institutions is expected to result in improved water resources management. Understanding the power dynamics between and among various actors, institutions and groups, is seen as vital. It shows who makes the decisions that affect access to the resource as well as its management. It reflects how and for whose benefit decisions are made regarding a particular common property resource. Alexander (1992) argues that sustainability is not only about the way the environment is managed, it is also about who has the power to decide on how it is managed and to judge the outcomes.

For other scholars, environmental sustainability is conceived as having to do with control, power, participation, and self-determination. Development of institutions that empower local communities is seen as a prerequisite for sustainable resource management (see Murombedzi, 1991; Abel and Blackie 1986; Seiderman 1992). This theoretical framework is used to analyze the emergence of new institutions in the water sectors of the three country case studies. The study explores relations between a multiplicity of actors and factors. These include government departments, local institutions, differentiated groups in society, finance and international financiers, and global prescriptions versus local solutions to resource management. While the focus on institutions is essential, it is also necessary to note that other scholars argue that institutional development is not a sufficient precondition for success. Leach, Mearns, and Scoones (1999: 241), for instance, argue that because institutional arrangements are dynamic, influenced by ongoing practices and agents of numerous social actors, as well as by contingent events in the economy and society, institutional design cannot assume

predictable outcomes. From this perspective, it becomes clear that strategic institutional changes such as alterations of legal frameworks do not necessarily lead to particular desired outcomes.

Methodologically, the paper employs a historical analytical approach that takes the reader through the changes that the three countries initiated during their water reforms. A critical exploration of global developments in natural resources management, with special emphasis on water, is carried out. Close attention is paid to an examination of the relative fit between reforms carried out in Malawi, South Africa and Zimbabwe, and the CBNRM model as prescribed at the global level. Implications of this model on developing countries are clarified, and strengths and weaknesses of the model are identified. Alternative potential solutions and recommendations are generated therefrom. Malawi, South Africa and Zimbabwe are used as case studies mainly because their water reforms are more substantive and advanced than is the case in other countries of the region.

### **Water as a global common property resource**

Water issues have been the subject of increasing international concern and debate. This concern can be traced back to the 1992 International Conference on Water and the Environment (ICWE) held in Dublin, Ireland. The ICWE alerted the rest of the world to the need to identify innovative strategies for the assessment, development and management of water resources. It laid down the basic policy guideline foundation which the United Nations Conference on Environment and Development (UNCED) held in Rio de Janeiro, Brazil, was to rely on. According to the World Bank (1993:24), the ICWE conference report sets out recommendations for action at the local, national, and international levels based on four guiding principles. First, the effective management of water resources demands a holistic approach linking social and economic development processes with the protection of natural ecosystems. Secondly, water development and management should be based on a participatory approach involving users, planners, and policy-makers at all levels. Third, women play a central role in providing, managing and safeguarding water. Fourth, water has an economic value.

An examination of principles that subsequently came out of the UNCED shows that they resemble an expansion and re-molding of the ICWE principles. Chapter 18 of Agenda 21 for instance is a reproduction of principles laid down at ICWE. What UNCED basically confirmed was the widespread consensus that the management of water resources needs to be reformed. Therefore, UNCED adopted the definitions and principles that came out of ICWE and redefined them into concrete action-plans that different countries could adopt. In 1993, the World Bank published a policy paper also stressing the need to implement principles that came out of the UNCED and defining its new objectives for the water sector. UN specialized agencies, international Non-governmental organizations (NGOs) and bilateral assistance agencies took up this call and are now participating in programs related to water resources management in one way or another. The Economic Structural Adjustment Programmes (ESAP) supported by the World Bank and the International Monetary Fund also stressed the need to cut costs in all spheres of government, water sector included. The concept of treating water as a scarce and economic good quickly spread widely.

In 1996, the Global Water Partnership (GWP) was formed to promote a holistic approach to water resources management. It is a forum through which various country members and institutions can collaborate and share water resources management experiences.

According to Water Dialogue, Jan-April 2000, "It was created as a mechanism to follow-up the water management principles agreed at the 1992 Dublin conference and Chapter 18 of Agenda 21." It aims to support countries in the sustainable management of their water resources. One outcome of the formation of the GWP has been the formation of the Southern Africa Water Partnership (SAWP), launched in June 2000. It has a regional focus but shares the same vision and mission statement with the GWP. The SAWP and GWP mission statement reads "Equitable and sustainable utilization of water for social and environmental justice, regional integration and economic benefit for present and future generations" (Water Dialogue, August 2000).

According to the Food and Agriculture Organization (FAO, 1995: 4), the message highlighted by all these efforts is that water is an increasingly scarce and valuable resource that must be managed in a sustainable manner for the survival of both the present and future generations. In response to these developments and other domestic factors, many countries the world over started planning to revamp their water sectors. Thus, systematic linkages between national water reform strategies and global management of the commons are identifiable. To evaluate progress made in implementing agenda 21, one needs to raise a few broad and fundamental questions. For instance, since UNCED, have particular countries moved closer to meeting their basic human needs? Is the quality of the environment and human life improving in different countries? Is the world reducing threats to the environment and enhancing people's capacity to meet required needs? Are options for future management strategies being broadened in any sense? Perhaps the most striking lesson from Rio de Janeiro in 1992 was the dramatic shift in emphasis to the importance of grassroots action and the need for participation by those outside government corridors of power in every stage of decision-making. How these new directions in resource management were subsequently implemented differs from country to country.

### **Summary of basic principles that emerged from the global paradigm shifts**

#### ***(a) Decentralization of management responsibility to the catchment or river basin level***

This has mainly entailed a physical partitioning of the country into hydrologically defined catchment areas for more integrated, holistic, participatory and sustainable management of the resource. This is usually preceded by legal, institutional, and policy changes that set out the terms of management under the new management regime. These changes are supposed to make the environment for water management more conducive and enabling. User-based organizations are formed as smaller units of management that are closer to the people on the ground.

#### ***(b) Promotion of equitable access to water for all citizens***

This comes as a realization of the fact that in some countries, water is not equally accessible to all groups. Some groups are better positioned to access and utilize the water and reap some economic benefits. Because water can be utilized to produce some economic benefits, it can be used as a vehicle for poverty alleviation. Therefore, access to

it should be equitable for all groups in society since no one deserves to remain poor. In any case, water for drinking purposes is a basic need to which everyone is entitled. Again legislation is used as the major instrument for making the desired objective of equitable access to, and allocation of, water a reality.

*(c) Water is both a social and economic good*

According to FAO (1995:4), this principle was a basic acknowledgement of the fact that despite its widespread scarcity, the majority of societies do not treat water as an economic good or service. If water were treated like other commodities it would be priced to at least cover its cost of supply, including storage, treatment and distribution so as to ensure its continued availability. This would also alert users to the need to adopt more efficient methods that reduce wastage. However, the pricing should not exceed the payment ability of those needing water, including the poor, because in a certain sense, it is a social good or a basic human right. It is out of this principle that we now have concepts like the user pays and the polluter pays. These concepts basically advocate that the water sector should not overly rely on subsidies. Instead, mechanisms must be found to make it self-financing. Extreme proponents of this view go as far as advocating privatization and commoditization of water.

### **CNRM in Southern Africa**

Throughout Southern Africa, there has been a move to decentralize natural resources management. A number of natural resources management scholars agree that in recent years, coinciding with the mainstreaming of participatory approaches in development theory and practice, there has been a policy shift to advocate that local resource users play an active role in the management of natural resources (see Murphree, 1991; Campbell and Shackleton, 2001; Murombedzi, 1991). In most countries of the region, decentralization efforts have been initiated for the transfer of some responsibility or authority over natural resources from central government to a lower level, be it local government, government department, or community-based institution.

Success of the different decentralization programs has varied from one country to another and one resource to another. Wildlife management has pioneered the move towards decentralized natural resources management with a considerable degree of success. The Communal Areas Management Programme for Indigenous Resources (CAMPFIRE) in Zimbabwe for instance, has gained an international reputation as a typical example of successful CBNRM even though it has had its fair share of criticisms and shortcomings. Steiner and Rihoy (1995) argue that the focus on wildlife meant that broader NRM issues have not featured prominently in the programmes so far. However, indications are that serious attempts have also been made to initiate CBNRM programmes for other resources like forests, fisheries and water with varying degrees of success. The water reform programmes are a case in point for these efforts. Within the space of a decade, a policy framework which relied on the state as the exclusive owner and manager of natural resources has evolved into a process of policy reforms that provide the legal, institutional and economic framework for communities to get more involved in NRM.

The evolution of CBNRM in the region has however not yet reached full maturity. The policy framework is now well known and well documented, but tangible benefits are still

minimal. According to Campbell and Shackleton (2001), in most instances, there is little evidence to demonstrate that decentralized authority has resulted in more sustainable NRM. The assumption is that if true community control is in place, then sustainable use and management will follow. But the links between local management and sustainable NRM still requires attention and further research. In some instances, very promising projects face serious problems at the implementation stage due to exclusion of beneficiaries in the planning stages. Sometimes ill-founded targets are set that turn out to be unreachable. An unending debate has also ensued over the years regarding what constitutes a "community". As a result, CBNRM has faced serious criticism from various quarters. For this reason, associating decentralization with sustainable resource management and improved governance remains debatable (see Brand, 1998, Agrawal and Ribot, 1999).

Despite all the criticism, the successes achieved by some decentralized wildlife management programmes in the Southern Africa region remain a living example of what CBNRM can achieve and a number of scholars have already documented the successes and failures in the region (see Murphree, 1991; Hulme and Murphree, 2001; Western and Wright, 1994). It is not surprising, therefore, to find new attempts being made to replicate this experience in other natural resources. Although it may appear too early to talk of a general CBNRM strategy for the region, there is little doubt that a shared set of principles and policies has emerged to guide NRM. Steiner and Rihoy (1995:1) point out that these principles represent a reversal of protectionist conservation philosophy and subsequent top-down models for development and resource protection.

### **South Africa and water reforms**

The reform of the water sector in South Africa culminated in the passing of the National Water Act (Act 36 of 1998) which sets out the framework for the management of water resources in the country. The Act provides for the establishment of new water management institutions at local levels. These include catchment management authorities (CMAs) and water user associations (WUAs). WUAs are basically cooperative associations of individual water users who wish to undertake water-related activities for their mutual benefit. The water Act goes on to specify that its purpose is underpinned by principles of equity, efficiency, sustainability, and stakeholder representation. The CMAs are statutory bodies governed by a board which represents a broad stakeholder grouping together with experts. It is expected to seek cooperation and agreement on all water-related matters from the various stakeholders and interested persons. The CMA governing board is supposed to reflect a range of stakeholders and water users, gender and demographic representation, representation by the Department of Water Affairs and Forestry (DWAF), local, provincial and national government, and historically disadvantaged communities. This board is appointed by the minister of water.

CMAs have the responsibility of managing water within their catchment areas. The need to establish CMAs has led to the division of South Africa into 19 Water Management Areas (WMAs). CMAs are also expected to develop and implement catchment management strategies for water in their areas of jurisdiction. The strategies must be in harmony with the National Water Resource Strategy. CMAs provide the second tier of

water management. Above them lies the Department of Water Affairs and Forestry. They operate within the broader framework provided by the Ministry responsible for water. The CMAs have the legal right to delegate local implementation activities to other institutional units as they see fit, for example, WUAs, international water management bodies, catchment management committees, and water services institutions. WUAs potentially form the third tier of water management. Their broad role is to enable people within a community to pool their resources together in order to more effectively carry out water related activities. Members are thus expected to benefit from addressing local needs and priorities.

The process of establishing CMAs started with awareness creation, public participation and the formation of catchment management forums. Emphasis was placed on developing relations based on trust amongst all stakeholder groups as well as a common view regarding the way forward. All subsequent developments in the catchment were to be based on extensive stakeholder consultations and participation. Some of the specific tasks that are supposed to be done by the CMA include the following: investigating and advising on the protection, use, development, conservation, management and control of the water resources; developing a catchment management strategy/plan; coordinate related activities of water users and institutions; promote coordinated implementation of development plans; promote community participation through awareness raising; issue general authorizations and water licenses; review licenses; make rules to regulate water use; temporarily control, limit or prohibit use of water during periods of shortages. Catchment management plans/strategies are supposed to reflect the needs and expectations of different water users and the nature of stakeholder interest in the strategy. They are also supposed to reflect local knowledge about existing protection, conservation, management, and control of water resources

### **Zimbabwe and water reforms**

The water reform programme in Zimbabwe can be traced back to 1992 when the Ministry of water appointed a team of experts to move around the provinces consulting stakeholders over the existing Water Act. Specifically, the experts were asked to gather information regarding people's views on the strengths and weaknesses of the Water Act at that time. The team was given a maximum of two months to complete their task. Even though the time allocated was relatively short, this consultation process provided a starting point for the reforms that were to be initiated later on. In 1993, a workshop on water resources management in Southern Africa was held in Victoria Falls. The workshop was sponsored by the World Bank, the Commonwealth secretariat, United Nations Development Programme (UNDP), and the Canadian International Development Agency (CIDA). The workshop was a watershed in the history of water policy conceptualization and shifts in Southern Africa. It brought into sharp focus the realization that water scarcity was for the whole region and water management became a top priority. The role played by international financiers and players makes it logical that the recommendations emanating from the workshop were aligned to the globally adopted principles in Agenda 21.



It is also interesting to note that debate over reform of the Zimbabwean water sector began in the early 1990s, the same time that the country introduced the Economic Structural Adjustment Programme (ESAP). The influence of ESAP is reflected in principles that were eventually adopted such as treating water as an economic good. After the conference, an international consultant (Halcrow) was engaged to produce guidelines for the formulation of a water resources management strategy for Zimbabwe. The report was adopted and in 1995, a Water Resources Management Strategy unit (WRMS) was set up to produce a comprehensive strategy for reforming the water sector and managing water in general. The main objectives of the reform programme were outlined as the sustainable, equitable and economically feasible use of Zimbabwe's water resources, taking into account shared waters. The reform entailed the drafting of a new Water Act for the country through a stakeholder consultation process and the development of new institutions for managing water. As recommended by international players, one finds principles of decentralization playing a substantive role in the policy framework and institutional structures that emerged. Catchment-based water management structures emerged.

Two Pilot Catchment areas, namely, the Mazowe and Mupfure, were selected for testing the efficacy of the new water management paradigm. Successful management practices in the pilot areas would then be replicated throughout the country. Catchment Councils (CCs) were formed at the catchment level to take overall responsibility for the management of water in their respective catchments. The CCs were to be composed of different stakeholder groups in the catchment in order to ensure adequate sectoral representation and participatory decision-making. Below the CC, Sub-catchment Councils were formed to assist the CC in carrying out its mandate. The SCCs were given the right to form any other unit below them for the effective management of water in their areas of jurisdiction. As a result, WUAs and Water User Boards (WUBs) composed of different stakeholders were formed at more localized levels.

A new Water Act was passed in 1998 setting out the new legal framework for institutional development and water management in the country. The country is now divided into 7 catchment areas managed by CCs and SCCs with the assistance of WUBs and WUAs. These management units are formed through an electoral process that is supposed to ensure democratic institutional building. The specific terms of reference for the CCs include the development of a catchment plan, granting, reviewing or canceling water permits, regulating water use rights and ensuring compliance with all water regulations. Technical experts in the form of Catchment Managers and Water Pollution Officers assist the CC in running water management affairs.

A new body has also been formed to take overall responsibility for water affairs throughout the country. This is known as the Zimbabwe National Water Authority (ZINWA) which was established by an Act of Parliament. Thus at the time a new water Act was passed, the ZINWA Act was also passed to legalize the new management body. 6 out of 7 CCs were formed with financial and logistical assistance from donors like GTZ, the Royal Netherlands Government, and the Swedish International Development Agency (SIDA). The guiding principles that the reform has focused on may be

summarized as: ensuring equitable access to water in order to correct historical imbalances in the allocation of the resource between different social groups as well as to ensure sustainable management of the resource; decentralized management in which stakeholders play a more significant participatory role; and recognizing the economic value of water by ensuring cost-recovery through appropriate pricing structures and more efficient water use methods. Focus shifted from supply-oriented to demand management strategies for ensuring availability of water in time and space.

### **Malawi and water reforms**

Malawi introduced its water reforms at a later stage in comparison to Zimbabwe and South Africa but the major thrust of the reforms is almost the same because Malawi also joined the decentralization bandwagon. Since 1994, Malawi has significantly revised its environmental legislation and in many cases, incorporated principles of CBNRM. In 1998, a new Local Government Act was passed aimed at transferring authority from central government to districts and municipalities. A new water resources management policy was passed in 2000 to guide the country in its reform endeavors. A new Water Act was also passed in 2001. Unlike in Zimbabwe and South Africa, Malawi's main concern appears to be with water for drinking purposes rather than water in general. The new water policy developed in 1994 gave priority to potable water supplies as reflected in the National Water Development Project.

The main focus of Malawi's water reform is on decentralization, institutional re-organization and capacity building in urban water supply and sanitation services. The Lilongwe and Blantyre Water Boards have been re-organized, and a Water Board was created for each of the three regions in the country. All boards are now required to operate along commercial lines in order to ensure cost-recovery. CMAs will be created and assigned specific functions. They will operate on a commercial basis in line with operational modalities they themselves design. It is also expected that WUAs will be formed to assist the CMAs. It remains unclear, however, where money to fund the CMAs will come from. Most rural water supply facilities will be handed over to communities and user-based institutions. Focus has also been shifted from simple provision of water to include productive uses of water. The policy recognizes increasing competition for water among different users. It thus calls for equitable allocation to all users and sectors. However, although global views have shifted from the supply side to the demand management side, little water infrastructure exists in Malawi and this makes the country's case different from other countries. The government's Policy Statement (2000:4) notes that there are no major storage dams despite existing potential and need. However, there are a number of small reservoirs constructed for water supply, irrigation and conservation purposes. As a result, the protection of domestic water supplies is accorded first priority over other uses. Demand management strategies are also being taken on board in the reform process. It is necessary to point out that structural adjustment policies instituted in the country in the 1980s has significantly changed development thinking in the country. The country is improving its policy environment and economic management. Market oriented development strategies have been adopted in many sectors including water.

Beginning in 1994 with the National Environmental Action Plan and followed in 1996 with the National Environmental Policy and the Environmental Management Act, most environmental laws and policies have been re-written and the new water policy is part of this process. Broad consultations with stakeholders were carried out to identify environmental problems and appropriate solutions for them. This signified the beginning of participatory policy-making in Malawi. The Local Government Act of 1998 has transferred administrative and political authority from central government to the district and municipal levels. District assemblies, traditional authorities and user groups now play an active role. It also integrates governmental agencies at these levels into one administrative unit. Resource users are for the first time being called upon to carry responsibilities that they traditionally did not carry. Whereas in the past government was the sole manager of natural resources, the new policy and act pave the way for the devolution of management powers to individuals, communities, and user associations.

CBNRM is relatively new in Malawi but it has taken root. In accordance with the country's poverty reduction strategy, the main objective is to manage natural resources in a sustainable and income generating way. Simmons (2000:1) notes that while countries in Southern Africa vary in their emphasis on CBNRM, Malawi has gone furthest in instituting fundamental changes in policies and legislation to redefine ownership, use and management of the resource base. However, CBNRM initiatives in the country are largely dependent on donor support and direction. Their influence as reflected in the new policy thrust has its origins in ongoing global natural resources management paradigm shifts.

### **Lessons Learned**

The history of water reforms in the three countries of study indicate an adoption of principles agreed at international conferences and conventions. The similarity of the basic goals and objectives between the country reform strategies and those laid down in agenda 21 for instance is clear testimony to the effect that global paradigm shifts are having on country restructuring of the commons. In all three countries, a few principles stand out that resemble agenda 21 recommendations. These are: the move towards decentralization and CBNRM; the desire to consider water as an economic good and emphasize cost-recovery; embracing equity in resource allocation for sustainability in management and poverty reduction.

Globalization of water resources management and the reform programmes that it has influenced in Southern Africa may not necessarily bear the expected fruits because of a number of reasons. It is one thing to sit down and come up with a brilliant resource management framework, what with all the elaborate principles to borrow from agenda 21. It is quite another thing altogether to put those principles into real practice. Campbell and Shackleton (2001) argue that even though appropriate policy and legislation may exist, there can be large differences between the stated intent of government and how bureaucracies apply this intent in practice. Real commitment by government to transfer authority and power to the lowest levels is rarely existent. In all the three countries of study, one recognizes the continued presence of government in local affairs through technical experts and other officers who remain loyal to central government. Their officious attitudes remain a source of resentment for them by communities. The Global

Water Partnership (2000:11) points out that although many countries have begun to put into practice some of the principles of international agreements, the degree of commitment displayed is inadequate to cope with the growing water stress conditions.

Bureaucratic delays in approving legislation, dealing with applications, and sanctioning local plans can also be a threat to CBNRM. For South Africa and Zimbabwe, the new Water Acts took a long time to be finalized and passed probably because consultations with various stakeholders tend to be time-consuming. After they were passed, one would have expected a quick implementation of the reforms but that was not to be. A string of statutory instruments designed to operationalize the Water Acts took long in coming such that two years after the Acts were passed, very little had changed in the water sector. These delays tend to reflect badly on the government because it gives the impression that the government itself does not have confidence in its new policies.

There are many cases in which policies may be promoting contradictory outcomes. One might argue that Southern African countries embraced global driven water resources management recommendations without looking at their own circumstances with a sufficiently critical eye. The shift towards making water an economic good for instance is brilliant on paper but operationalizing it in the Southern African region context could be problematic. On one hand, treating water as an economic good amounts to commoditization of a common property resource. It means using the market mechanism to allocate the resource. On the other hand, it is generally agreed that a large percentage of the region's population is poor. It is also common knowledge that certain sections of the population were advantaged by colonial and apartheid policies of dual development and that this state of affairs has not yet been altered significantly. How then are the poorer groups in society going to participate in a market oriented water resources sector when their socio-economic position generally disadvantages their access to the resource? In addition, on the one hand, the new global CBNRM framework emphasizes equitable resource allocation. On the other hand, the economic view of resources emphasizes the 'user pays' principle. The market mechanism and the principle of equity are inherently contradictory particularly where conditions of fair competition among resource users are non-existent. It is argued here that the Southern African region is not yet ready for the market mechanism, especially for the allocation of resources like water.

Derman and Ferguson (2000) have a more elaborate point of view regarding the economists' view of water. They argue that the user pays principle embodies elements of a free marketer's dream (or nightmare). They further argue that the principle unmasks the irrationality of the economic view which underlies the official reform processes. The vast majority of Zimbabweans, for instance, do not have water rights in the legal sense of the term and are unlikely to get them because of the reform. What they have are primary use rights which enable them to use water without paying. The principle of user pays therefore, applies only to commercial water users who constitute a very small section of the society. But because of the need to broaden the water levy base, the user pays principle has triggered a long-ranging debate about what constitutes productive use of water since only productive water users are legally liable to pay the new water levies.

Where is the dividing line between commercial and non-commercial water-use? It is a debate with the potential to arouse feelings of resentment and resistance from the poorer small farmers who have been using water without permits for a long time. The user pays principle conforms to Hyden (1983) 's thesis on capturing the uncaptured peasant into the formal economic system. The peasants are unlikely to be willing participants. In any case, the social value of water as a basic need should not be underrated and it would be inappropriate to apply pure economic principles to such a resource would.

The decentralization processes recommended at the international level and adopted at the national level are quite noble. They bring resource management to the user level by utilizing smaller units of management. One might want to call the decentralization movement 'globalization through fragmentation and localization'. However, a cautious approach needs to be adopted because the process is full of complexities. These complexities have led some scholars to conclude that there is a "cloud of rhetoric" surrounding the re-orientation to community participation and that participation in development projects is still a myth (see Cernea, 1985; Midgeley, 1986; Ghai, 1988).

For many years, governments have controlled resource management and sidelined communities in conservation efforts. In line with the new global paradigm shifts, community-based institutions are suddenly given enormous responsibilities to manage the resources. They need time to adjust to their new roles, they also need time to adjust to the need to bury their differences with other different stakeholders who are part of the new institutions and cooperate with them. This cannot be a smooth process because the new institutions are not familiar with the new roles. It is also impossible to wish away the mistrust that exists between and among groups that were originally divided by history. Unfortunately, in the execution of their duties, the new institutions are expected to interface effectively with the institutions that historically held ownership, management rights, and benefits from the natural resource. As Oakley et al (1991:4) states, centuries of domination and subservience will not disappear because we have "discovered" the concept of participation. Under these circumstances, the fruits of decentralizing management responsibilities can only be realized (if at all) in the long term. In any case, as Ostrom et al (1999:281) points out, having larger numbers of participants in common property resource management increases the difficulty of organizing, agreeing on rules, and enforcing the rules.

The above view is also shared by Wilson (1997:7) who argues that the new institutions that emerge from these CBNRM face a formidable task. They should suddenly be able to assume more formal property rights decisions, police resource access, make decisions on the harvests and distribution of benefits, develop and deploy the necessary resource management expertise; and measure and monitor basin hydrology. These are responsibilities that require a considerable level of capacity and this is not readily available in the communities. At the same time, creating and capacitating new institutional structures is a very costly exercise. The transfer of authority to the local levels can also create a new group of elites who takes advantage of this authority to benefit themselves. Thus, communities with many layers of socio-economic stratification and multiple interests can pose serious problems for CBNRM.

In all the water reform programmes mentioned in this paper, there is a clear move towards management of water at the catchment level through the establishment of new catchment-based institutions. Rivers and catchments or river basins cut across administrative and political boundaries. Overlapping jurisdictions and mandates become unavoidable thereby leading to potential contestations and conflict among different actors. This makes coordination of management across administrative boundaries essential and formidable. Creation of new institutional structures at the catchment level also has the problem of not recognizing the role that existing institutions can play in resource management. In most cases, both traditional and modern local government units are already in existence when the reforms are initiated. To link the new structures to the existing structures is not easy. Some members of the old structures might even feel that their territory has been invaded and friction ensues. This makes CBNRM difficult to implement. A general observation is that most of the catchment-based successful models and examples are from higher income countries like Australia, France and America. With blind optimism, some developing countries have adopted those models but they do not necessarily work in developing country contexts.

#### **Alternatives, recommendations, conclusion**

Hardin (1985:144) advises, "Never globalize a problem if it can possibly be dealt with locally." Sharma et al (1996:xiii) advocates that on the basis of evaluations made by Africans of their own water resources, the current situation calls for country-led water resources management built on local experiences and good practices. Initiation and leadership of reform programs should be the responsibility of the individual countries themselves. Differences between the developed and developing world preclude the wholesale importation of management models. Elements of the models must be selectively adopted and adapted to particular countries. Partnerships must be developed between government agencies, sectors, rural areas and urban areas, communities, other stakeholders, co-riparian states and international donors. Institutional capacity must be built carefully and assigning particular functions to the new institutions might have to be deferred until sufficient capacity has been developed. Institutional strength is enhanced by clearly defining unambiguous responsibilities for the newly created institutions. Otherwise, as Campbell and Shackleton (2001) argue, institutional ambiguity can be an important factor in disrupting CBNRM.

While decentralization has its positive aspects, the danger that arises is that of having new institutions operating independent of existing district, provincial and traditional authorities. This leads to decreased political support and this can be avoided by taking everyone on board, at least in terms of representation on the new institutions. Despite the weakening of traditional institutions, case evidence indicates that neither colonial governance nor independent regimes managed to destroy these institutions completely. These and other formal local government agencies continue to play an important role in NRM and must be given the room to participate in any decentralization programme. As Sharma et al (1996:52) points out, for generations, African society has been in harmony with its environment; with cultural practices and lifestyles that incorporated coping strategies for climatic variability and droughts. Preserving those coping strategies and

building upon them should be a feature of CBNRM initiatives across the region. Sidelining traditional authority structures would make the efforts useless.

Developing and strengthening new institutions which are effective and responsive to dynamic and competing demands from all quarters is a very difficult and time consuming exercise that requires a lot of patience. It needs at least three years to bear fruits. Those facilitating the process must bear this in mind as well as realize that there cannot be any shortcuts to progress. Any attempt to put this process on higher speed can easily derail the initiative by ignoring the social, economic and political dynamics in society. The Zimbabwean case presents an interesting scenario. Before any water right had been issued under the new water management regime, before anyone had adequately evaluated the successes and failures of the pilot catchment areas, other catchment councils were hurriedly formed, may be with a view to meeting certain deadlines. This tends to work against the CBNRM initiative and it must be avoided. Generally, CBNRM initiatives should start on a small-scale, be rigorously selective on priority management functions, take a medium to long term orientation and be given the time they need to mature. As Murphree (2000:12) points out, institutional evolution involves experiment. A chain of incremental learning is necessary which defines objectives, identifies options, selects and implements approaches, monitors results, and adapts objectives and action on the basis of these results in a continuous and iterative process.

In conclusion, it is important to emphasize that CBNRM still faces many challenges and that there are still a number of lessons to be learned. It is a development approach that is still in a state of constant flux and change. Each situation is unique and the success of any CBNRM initiative is heavily dependent on a number of factors and aspects peculiar to that context. It would therefore, be naïve for anyone to prescribe in definite terms what works and what does not work. Policy-makers, practitioners and researchers must recognize the need for CBNRM initiatives to maintain some degree of flexibility in order for them to be adaptable to local contexts. There is also a need to recognize that CBNRM is a process which takes into account multiple issues, complexities, needs, interests and power dynamics that arise from the desire to allocate resources. Globalization trends in common property resource management must be adopted cautiously and selectively so that they fit particular contexts. A useful assessment of the degree to which the water reforms initiated in the Southern African region genuinely devolve management authority to communities should be done three to five years after implementation in order to give sufficient time for the institutions to take shape and develop.

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