



Decentralization, Participation and Access to Water Resources in Malawi

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Broadening Access and Strengthening Input Market Systems

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INTRODUCTION

One of the major outcomes of the post-Cold War democratization process in Africa has been the devolution of power from the centrally placed authorities to local government and communities. Since the 1980s, and increasingly so in the 1990s, most African countries have implemented decentralization programs. Malawi is no exception to this trend. Processes of decentralization, or local empowerment, are widespread today. Malawi enacted a Local Government Act in 1998 aimed at transferring authority from central government to districts and municipalities. Since 1994, it has also significantly revised its environmental legislation and, in many cases, incorporated language encouraging co- and community management of natural resources. It is generally accepted that decentralization promotes good governance and other democratic ideals by broadening access to and voice in governance institutions. Indeed, under a decentralized system, citizens are ideally given the opportunity to participate in policy- and other decision-making processes, and elected authorities are accountable to their constituencies. In this regard, Agrawal and Ribot (1999) note that “the presumed benefits of decentralization become available to local populations only when empowered local actors are downwardly accountable. Actors, powers, and accountability emerge as essential elements of a framework that can help evaluate the effectiveness of decentralization.”

This paper summarizes BASIS research on the current state of these decentralization processes in Malawi with a focus on water resources. We review the rapidly changing policy and legal context to examine what the implications of these reforms are for voice in water management institutions and, ultimately, access to water. Part I considers international trends in water resources management. Part II provides a review of the current state of water resources in Malawi. Part III takes a close look at the changing policy, legal and institutional context with regard to water and other natural resources. It focuses particularly on issues of decentralization and empowerment. In Part IV, we provide a case study of the Likangala River in Zomba District to illustrate conflicting demands for water and some of the challenges faced in implementing decentralization reforms. Conclusions and recommendations are presented in Part V. The research is based on a review of policy documents and other reports, semi-structured interviews with policy makers, project implementors, donors and water users at national and district levels, and field research involving surveys and focus groups.

PART I: INTERNATIONAL DIMENSIONS

At the international level, a paradigm shift has occurred over the last two decades in thinking about water resources. Current strategies are reflected in international statements such as the *Dublin Principles*, the Rio Summit's *Agenda 21*, and in most donor and international lending organization policies. It is beyond the scope of this paper to review these documents in depth, but general trends guiding contemporary approaches can be identified. Many of these are presented as loan conditionalities by the World Bank and other international lenders. The new thinking includes:

- Removal of subsidies and institution of pricing and other regulatory measures to limit the demand for water and to channel its use to the most productive economic sectors;
- Institution of decentralized management with greater stakeholder participation and responsibilities;

- Promotion of an integrated approach to water management both ecologically through a focus on river basin/catchment management, as well as across economic sectors and ministries;
- Recognition and protection of the rights of the environment itself to water; and
- Increased social equity in access to water and voice in water-related institutions.

These concepts mark a significant change in direction from policies followed in the 1970s and 1980s in the following ways:

- The previous focus on supply-side dynamics—particularly state provision of infrastructure such as dams, irrigation schemes, potable water and sanitation facilities—is being replaced by a demand-side orientation. Comprehensive river basin management strategies involving stakeholder participation and emphasizing markets, pricing and technology are being implemented to promote water use efficiency, recover costs and conserve the resource.
- This shift is accompanied by changes in personnel in water ministries and departments, with economists now playing key roles in addition to hydrologists and water engineers who traditionally staffed these organizations.
- Notions of clientele and their roles also have changed. Concepts like “community-based management” and “stakeholder participation” have replaced ones like “beneficiary,” with stakeholders being asked to play expanded roles in resource management and, in many cases, to shoulder costs.
- While the 1980-90 United Nations International Drinking Water and Sanitation Decade did much to bring women’s responsibilities in water management at the household and community levels to the attention of policymakers, their participation and voice in new institutions is low as health and sanitation concerns have given way to a focus on “productive” uses of water, economics and the ecology of watershed management.

We will return to these points as they relate to Malawi below.

PART II: WATER RESOURCES IN MALAWI

Potable Water and Water-Based Sanitation Facilities

International reports identify Malawi as one of the Southern African countries likely to experience absolute water scarcity by 2025 (Ohlsson 1995). However, this estimation appears to reflect infrastructure and distributional problems more than actual scarcity. The country has an extensive network of rivers and lakes, with water bodies covering more than 21% of the territory. Much of this water is found in Lakes Malawi, Malombe, Chilwa and Chiuta.¹ Approximately 30 cubic km of fresh water are renewed every year. The *Country Situation Report on Water Resources* in Malawi (Kaluwa, Mtambo and Fachi 1997:x) indicates that there are renewable freshwater resources of about 3,000 cubic m per capita per year, but that

¹ Lake Malawi is the third-largest lake in Africa. It covers an area of 28,750 kms and has an estimated volume of 7,730 cubic km.

the distribution across the country is irregular and varies by season and year. Ninety percent of the run off in rivers and streams occurs between December and June, and only 0.1% of this is estimated to be captured for later use.

Access to potable water remains limited. The new *Water Resources Management Policy and Strategies* (GOM WRMPS, 2000) reports that:

The existing urban and rural water supply schemes and systems provide access to potable water facilities for up to 54% of the country's population, which reduces to 32% with access to potable water at any one time due to breakdowns, drying up of sources and other operational and maintenance problems. (2000:4)

Rural water supply schemes and systems are the responsibility of the Ministry of Water Development, although lack of funds limits the reach of this department, and numerous nongovernmental organizations (NGOs) and donors are now active in rural water supply. The government developed a new water policy in 1994, giving priority to provision of potable water supplies as reflected in the National Water Development Project. The focus was on decentralization, institutional reorganization and capacity building in urban water supply and water-borne sanitation services. The Lilongwe and Blantyre Water Boards were reorganized, a water board was created for each of the three regions of the country, and all were mandated to operate on a commercial basis emphasizing cost recovery.

Only three of Malawi's cities—Blantyre, Lilongwe, and Zomba—have central sewage systems. *The Country Situation Report on Water Resources in Malawi* (Kaluwa, Mtambo and Fachi 1997:43) notes that only 5.5% of the population has adequate sanitation, and 30% has no sanitation at all. In urban areas coverage is greatest, with approximately 30% of the population having access to adequate sanitation. In Zomba District, while 88% of the population has access to "some form of sanitation," only 5.5% have "access to adequate sanitation" (Kaluwa, Mtambo and Fachi 1997:45). Release of untreated sewage directly into rivers and streams is a major cause of water pollution in Malawi.

Similar to other countries in the region, the assessment and monitoring of groundwater are limited. Boreholes are sunk by government departments, nongovernmental organizations (NGOs), donors, the private sector and communities with minimal regulation. Policies and legislation for the implementation of borehole development and construction are not yet fully in place (GOM WRMPS 2000:5). Similarly, borehole construction industries are not sufficiently regulated to check compliance with standards, resulting in opportunities for graft and corruption, as is described in Part IV.

Use of Water for Productive Purposes

Water resources underpin the productive sectors of Malawi's economy, chief among them agriculture, hydroelectric power generation and industry. Approximately 93% of energy use presently comes from fuel wood and charcoal (*Daily Times*, July 2001). While Malawi has an estimated national hydropower potential of 800MW, more than half of the capacity remains undeveloped. Existing supplies are threatened by low water flows and sedimentation of the Shire River where almost all of the power generation facilities are located. Power disruptions occur frequently, especially in dry years (Kaluwa, Mtambo and Fachi 1997:47).

Although much of Malawi depends on rainfed agriculture, the country has considerable unrealized irrigation potential. The droughts of the early and mid-1990s have renewed interest in developing irrigated agriculture. Currently, the large sugar estates account for the majority of the irrigated area, but small dams and irrigation facilities are also found on tea, coffee and tobacco estates. Government-sponsored smallholder schemes are located mostly along the lakeshore plains of Lake Malawi, Lake Chilwa and the Lower Shire Valley. Self-help schemes established with varying degrees of government support and relying on stream diversion technologies also exist. In addition to these formally recognized projects, farmers in Malawi make use of many low-lying *dambo* (wetlands) areas for stock grazing and crop production during the winter season using simple water harvesting and irrigation techniques. These areas are not included in official figures but are likely to constitute a larger total land area than is encompassed in the officially established irrigation schemes.

Many of the self-help and government irrigation schemes are understaffed and in disrepair, although some are presently being rehabilitated in preparation for handing them over to communities. Malawi has recently adopted a well-crafted new *National Irrigation Policy and Development Strategy* (2000) that describes the plans for transfer of these facilities to smallholder farmers.

Water is used in industry, manufacturing, processing and mining, but little is known and few statistics regarding use are available for these sectors. Beer and textile companies and coffee and tea processors make use of water resources. The assumption is that private-sector industrial expansion is limited by lack of adequate water infrastructure and supplies, especially in the dry season (Kaluwa, Mtambo and Fachi 1997:46). The industrial sector also is responsible for degradation of water quality through dumping of wastes into rivers and streams, as is evident by the present state of the Mudi River in Blantyre and the Lilongwe River in Lilongwe. In addition, trade and transport depend on water resources. Lake Malawi is an important shipping route for the Northern Corridor, and transport has been severely affected by the recent low lake levels.

Finally, forestry, parks and wildlife, fisheries and tourism all have stakes in Malawi's water resources. The fisheries sector constitutes the main source of animal protein for the population and is a major provider of income through fishing, fish processing and trading. The headwaters of many of Malawi's rivers lie in national forest reserves or in national parks and game reserves. Catchment protection, sustainable forestry and agricultural practices must be instituted to halt the present extensive degradation and siltation of rivers and streams. For example, the 1998 *State of the Environment Report* notes that land clearing for agriculture, coupled with high wood demand, has resulted in a forest cover decline of 41% between 1972 and 1990 (GOM Environmental Affairs Department 1998:11). The same report indicates that land holding sizes have declined by 22% over the last decade, with the average land holding size in 1996/97 dropping to 0.86 ha. Smallholder farmers increasingly are practicing continuous cropping of maize, without rotation or fallow, and are farming on steep hillsides. Farmed land exceeds the area estimated to be suitable for cultivation by 150% (GOM WRMPS 2000: sec.2.1.2). These practices promote deforestation and soil erosion and contribute to increased frequency and severity of floods and droughts.

To address production constraints, new water-related infrastructure projects are underway. Funded principally by the World Bank, they include the recently completed Mulunguzi Dam to provide water in Zomba Municipality, as well as flood mitigation projects on the Songwe

River in the North and the Shire River in the South. A project has also been launched to stabilize the level of Lake Malawi. Many of these projects are international in scope as Malawi shares the water resources in question with its Southern African Development Community (SADC) neighbors: Tanzania, Mozambique, Zambia and Zimbabwe.²

Although the international perspective on management of water resources has shifted from supply-side concerns to demand management ones emphasizing conservation of watersheds and efficient use of existing water resources, as the above review suggests, little water-related infrastructure exists in Malawi. The new water policy statement notes that:

Malawi is heavily dependent on run-of-the-river schemes, whether the use is for hydro power, irrigation, water supply, navigation, etc. There are no major storage dams despite existing potential and need. However, there are small reservoirs with storage capacity ranging between a few cubic metres and about 5 million cubic metres, which have been constructed for water supply, irrigation and conservation purposes. These dams total about 700 in number with a total storage of less than 1000 million cubic metres or 0.1 cubic km. (GOM WRMPS 2000:4)

Given this lack of basic infrastructure, Malawi's own circumstances, not only recent international trends in water management, must inform the new water policy and act.

PART III: THE POLICY CONTEXT

Much has changed legally and institutionally in Malawi since 1994. The country has moved from a one-party autocratic regime to a more open and democratic state. 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 rewritten, including those in the key water-related sectors of Forestry, Fisheries, Parks and Wildlife and Agriculture and Irrigation. The new water policy was approved by Parliament in 2000 and the new water law is pending consideration. Malawi also is presently undertaking significant reform of its land policy and legislation. Further, in 1998, the state enacted a far-reaching *Local Government Act*. It transfers administrative and political authority to the district and municipal levels, and it integrates governmental agencies at these levels into one administrative unit. In all cases, institutional and legal changes have involved significant devolution of authority from central government to local levels: District Assemblies, Traditional Authorities, user groups and communities. Resource users are for the first time being called upon to shoulder responsibilities in circumstances that are markedly different from the old political and socioeconomic context.

The degree to which these policy reforms reflect the will or voice of the people is difficult to ascertain. Many seek to empower communities and user groups in various ways and, as discussed below, policies increasingly are being developed in a participatory manner. Although they may have had little voice in most environmental policy setting, Malawians who depend on these natural resources for their livelihood will shape the on-the-ground

² See the SADC Protocol on Shared Watercourse Systems and the UN Convention on Non-Navigation Use of International Water Courses. The SADC Water Sector, with offices in Lesotho, was established in 1996 to promote sustainable regional integrated planning of water resources.

implementation and outcomes of these changes.³ This evolving institutional and policy context will be reviewed as an introduction to an analysis of the proposed new water reforms.

Poverty Reduction Strategy

Structural adjustment policies instituted in Malawi since the 1980s have significantly altered development strategies. The country is revamping its policy environment and fiscal resource management, as well as promoting increased transparency and civil society participation. Most notably, government's role has been redefined from that of key implementor in a centrally regulated economy to facilitator of development in a market-oriented one. Succinctly stated in the *National Irrigation Policy and Development Strategies*, the aim is to promote "a business culture" (GOM 2000:4).

The new macro-economic policies coupled with the withdrawal of the state from many of its previous roles and funding obligations have yet to yield many positive benefits for the majority of the population, who by all indices remain among the poorest in the world.⁴ Malawi is one of 22 countries receiving debt relief under the Highly Indebted Poor Countries (HIPC) Initiative.⁵ It is currently undertaking a broad-based consultative process to draft a poverty reduction strategy which is to include "the views and interests of the poor." This strategy is required for future World Bank and IMF lending.

The focus on poverty reduction permeates all other government policies as do three other closely related principles: redefinition of central government roles to focus on policy making and monitoring with delegation of administrative and management roles to other authorities; market-based, demand-driven strategies to reduce government funding obligations and expenditures through cost-sharing, user pay and other fiscal principles; and consultative, participatory approaches involving civil society to promote transparency and increase ownership. These approaches are evident in the newly drafted environmental policies and laws and the recently promulgated Local Government Act.

Decentralization

Decentralization entails the creation of new structures and processes to ensure that communities effectively participate in local governance. It is viewed as a positive good, a process that promotes efficiency and accountability of government to its citizens. Agrawal

³ Community Partnerships for Sustainable Resource Management in Malawi (COMPASS), a USAID-funded project administered by Development Alternatives Incorporated and Development Management Associates, recently commissioned a paper exploring ways in which local people can gain voice in policy making in the community based natural resources management arena: Janet Lowore and John Wilson. July 2000. *Grass-roots Advocacy for CBNRM Policy Reform: The Institutional Mechanisms, Sectoral Issues and Key Agenda Items*.

⁴ The 1998 State of the Environment Report notes that 60% of rural dwellers and 65% of urban residents are poor as defined by the UNDP. Malawi is consistently ranked among the ten poorest countries in the world (GOM Environmental Affairs Department 1998:4).

⁵ See Oxfam International, April, 2001, "Debt Relief: Still Failing the Poor," for an analysis of HIPC impacts. Malawi is estimated to be spending between 10-15% of government revenue on debt in 2001.

and Ribot argue that decentralization must be implemented in such a way that it avoids creating “theater pieces to impress or appease international donors and NGOs or domestic constituencies” (1999:2). They draw attention to the need for downward accountability whereby government officials answer to their constituencies, and actors and institutions at lower levels in a political and administrative hierarchy make decisions affecting their own lives. On paper at least, Malawi has made considerable progress in this regard.

Environmental Policy and Legislation

In 1994, the government undertook a broad-based consultative process to develop the *National Environmental Action Plan* (NEAP), which identifies key environmental problems, their underlying causes and appropriate responses at the policy and other levels.⁶ This exercise signaled the “birth of participatory policy-making in Malawi” (GOM, Environmental Affairs Department, 2000: Introduction 1.5.1).⁷ The NEAP was followed in 1996 by the *National Environmental Policy* and the *Environmental Management Act* which marked a significant departure from previous policies and laws. Whereas in the past the 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, user associations and other entities.⁸

In the wake of the EMA, most environmental ministries have revised their policies and laws to allow for varying degrees of transfer of resource tenure from the state to primary users. The premise is that “state control of natural resources encourages open access to the resource, whereas localized tenure systems imply restriction of access and therefore afford realistic opportunity for responsible management” (GOM Environmental Affairs Department, October 2000:1:1). Equally important, although often unstated, are the government’s financial and human resource limitations which prevent effective central control and policing of resources. The Environmental Affairs Department notes that devolution of tenure will vary by resource:

In practical terms the partition of rights and responsibilities between the State and the user will lie somewhere on a continuum bounded at one extreme by total state control (as, for example, in the core zones of protected areas) and at the other

⁶ The nine key environmental issues identified were: soil degradation; threats to forests, fisheries and water resources; threats to biodiversity, including wildlife; human habitat degradation; unsustainable population growth; climate change; and air quality issues. Causes of these problems were identified and solutions proposed.

⁷ It involved 18 task forces drawn from government, parastatals, the university and the private sector. Twenty four districts took part in consultative workshops to ensure the participation of the wider public. Once a summary document was drawn up, a national workshop was held, and a new process of review and consultation was undertaken to arrive at the final document. This process is described as one of the most broadly consultative efforts Malawi has undertaken.

⁸ Administratively, the law created the National Council for the Environment and the Technical Committee on Environment. It established the posts of Director of Environmental Affairs and District Environmental Officers, and it tasked the District Development Committees with new responsibilities in the environmental arena. It requires that the national and local governments produce Environmental Action Plans every five years and State of the Environment reports every two years.

extreme by total community control (as in a community wood lot). Between the two extremes lie various options for co-management in which both rights and responsibilities are shared by the state and the users. (GOM Environmental Affairs Department, October 2000:1.2.1)

In all cases, however, the government is responsible for monitoring the effectiveness of resource management and can withdraw tenure rights when responsibilities are not being met. Further, the EMA legislates that written laws on the protection and management of the environment which are inconsistent with any of its provisions are invalid.

Although community based natural resource management (CBNRM) is relatively new in Malawi, it has taken root and is now a major development model. In accordance with Malawi's poverty reduction strategy, the goal is to manage natural resources in a sustainable and income-generating fashion. A recent strategy paper noted that while countries in Southern Africa vary in their emphasis on CBNRM, Malawi has gone the farthest in instituting fundamental changes in policies and legislation to redefine ownership, use and management of the resource base (Simons 2000:1).⁹ CBNRM is promoted by NGOs and donors, particularly USAID which supports the Community Partnerships for Sustainable Resource Management in Malawi (COMPASS) project.

New policies and laws in Fisheries, Forestry and Parks and Wildlife reflect the devolution of authority to communities and user groups in differing degrees.¹⁰ For example, the Forestry policy and legislation allow for the creation of Village Forest Areas and village bylaws on customary land, with the Forestry Department maintaining overall authority for management plans and decisions on how to involve communities. In contrast, Fisheries and Wildlife policies call for co-management arrangements between the government and communities. The goal is to create enterprise development partnerships involving communities, the private sector and government (Simons 2000:2). In most cases, though, as with the EMA, these new policies and laws have maintained a check on full community rights and responsibilities.

To date, most focus has been on the policy, institutional and legal dimensions of CBNRM at the national level. The initiative is largely donor-driven and supported.¹¹ In a recent review of the status of CBNRM in Malawi, Simons (2000) reported:

- There is hesitancy on the part of the key resource ministries to transfer substantial use rights due to uncertainties about communities' capacities to manage the resources and also to ministries' own unsettled roles, power bases and responsibilities resulting from the new approach.

⁹ "Framework for Strategic Planning For Community-based Natural Resource Management in Malawi" was prepared for the USAID-funded project, Community Partnerships for Sustainable Resource Management in Malawi. Simons notes that: "At the moment, the Government of Malawi (GOM) is pursuing broad-based adoption of the CBNRM approach in the management of its entire resource base including forests, agricultural land, fisheries, wildlife and National Parks.

¹⁰ Malawi revised its Forestry Policy and Act in 1996 and 1997, the Fisheries Policy and Acts in 1997, 1998 and 2000, and the Wildlife Policy in 2000.

¹¹ Major funders are USAID, GTZ, DANIDA, DFID and the EU (Simons 2000:4).

- Actual implementation of policies and legislative reform is stalled or deadlocked as legal mechanisms have yet to be developed. For example, to date there are few endorsed village bylaws or signed resource management contracts under the new legislation. Most agreements have to be negotiated with the ministry concerned on a case-by-case basis.
- Little coordination exists among ministries, NGOs, CBOs, donors and other promoters of CBNRM. Policies and legislation are being interpreted differently by the various actors. Varying degrees of autonomy are being devolved, in many cases creating confusion at the community level where the formation of user groups is being promoted following different guidelines and implementation procedures.
- Most programs which exist at the community level are implemented by NGOs with outside aid.¹²
- Very little exists on the ground. The most successful initiatives are identified as Village Natural Resource Committees in forestry and Beach Village Committees in fisheries. Little is actually known about local social, economic or cultural organization, capacities or needs, thus making the CBNRM strategy difficult to implement.
- The sustainability of many CBNRM initiatives is in question, both financially and in terms of human resource capabilities at the ministry, community and other levels.¹³ In some cases, it is not clear if the natural resources themselves, even if well managed by user groups, will yield sufficient economic returns to justify the efforts.¹⁴

At this point, it appears that national policy and legislation promoting CBNRM have been developed in a top-down fashion informed by the developmental and academic discourses of donors rather than input from, or knowledge of local communities. Simons sums up the current status of CBNRM in the following fashion:

Having invested so much already to achieve broad based adoption of CBNRM, Malawi should now develop a strategy and mechanisms for effective coordination. This process must attempt to reverse the current trend where scarce resources have been invested in policy reforms and legislation that are hardly implemented, CBNRM projects started but are hardly community based, implemented in isolation, cost ineffective, unsustainable and with negligible impact at the national scale. Short of reversing these trends the efforts put in policy and legislative reform and project initiatives in the last five years will amount to little in terms of increased resource productivity or rural communities that are better off. (Simons 2000:20)

¹² COMPASS, one of the major promoters of CBNRM in Malawi, maintains a website which identifies “best practices.” It features approximately 30 examples, many of which highlight natural resource management techniques implemented by individuals rather than “communities” or user groups.

¹³ Most ministry personnel are technically trained. Many lack skills in community organizing, capacity building, accounting and other expertise that must be imparted to user groups.

¹⁴ Given Malawi’s depleted forests (especially in the south) and wildlife, observers have questioned whether the income raised in CBNRM would be worth people’s efforts (see Simons 2000:37).

Water Sector Reform

The Ministry of Water Development has a longstanding engagement with community-based management, as it has trained rural people in shallow well, borehole and piped water maintenance and sanitation since the 1980s. However, these early programs differ from those being promoted today. Their focus was restricted to community involvement in maintenance and repair of water sources. The Ministry, similar to other environmentally related ones, is currently reworking its policies and laws to give communities and stakeholders expanded rights and responsibilities. The new Water Resources Development Policy and Strategies was approved by Parliament in 2000 and the draft Water Act (May 1999) is under review.¹⁵

The new policy reflects many of the international trends in water resource management expressed in the *Dublin Principles* and *Agenda 21*. It addresses three shortcomings of the 1994 policy:

- The previous document focused on water supply and sanitation services, and did not provide a vision or policy objectives that addressed development and management of water for productive purposes, conservation or poverty reduction.
- It did not recognize international and regional conventions and agreements on water resources to which Malawi was a signatory.
- It did not make adequate provisions for monitoring, assessment or developments related to watershed management, conservation or the mitigation of floods and droughts.

The draft law addresses deficiencies of the 1969 Water Resources Act, particularly its lack of a schedule of offences and penalties; its inadequate provisions concerning water rights, water harvesting, water savings and transfer; and its failure to provide for stakeholder participation. The new legislation will recognize recent international treaties and conventions to which Malawi is a signatory.¹⁶

The new policy and draft law address these weaknesses. The policy follows the directions spelled out in other new environmental documents: poverty alleviation through market liberalization; promotion of private enterprise, demand management and cost recovery; decentralization and greater stakeholder involvement; and sustainable and efficient use of resources. The draft policy views water as a social and economic good, as reflected in the following vision statement:

The vision of the water sector should therefore be founded on the central policy of poverty alleviation and economic growth and prosperity. This vision should be a situation where every Malawian individual and entrepreneur has equitable access to water for his/her social and economic welfare and the advancement of the country's sustainable growth and prosperity. (GOM, WRMPS 2000; sec.5.1)

¹⁵ The new policy replaced the 1994 policy and strategy paper; the new law will replace the 1969 Water Resources Act and amend the 1995 Water Works Act.

¹⁶ Amendments also will be made to the 1995 Water Works Act to expand the mandate of the Water Boards to rural areas; include provisions for stakeholder participation in ownership, management and maintenance of water schemes; and recognize water as an economic good.

The focus is no longer simply on the provision of water and sanitation services; it has been expanded to include consideration of water as a multi-purpose productive resource. The policy recognizes increasing competition among users, and calls for equitable allocation to all sectors, including water supply and sanitation, irrigation, hydropower, tourism and recreation, environment, manufacturing and navigation. It sets out the roles other ministries, such as Forestry, Agriculture and Irrigation, Fisheries, and Parks and Wildlife, must play if catchments are to be protected and water quality and flows in rivers and streams are to be improved.

The document is divided into five sections: policy principles and institutional provisions; water resources management policies and strategies; water services policy and strategies; institutional roles and arrangements; and capacity building. The central government is identified as the custodian of the nation's water resources, and its powers are to be exercised as a public trust.¹⁷ Highest priority is given to water for domestic use and environmental sustainability:

The protection and use of water resources for domestic water supplies will be accorded the highest priority over other uses, with water for basic human needs and maintaining environmental sustainability being equally guaranteed as a right. (GOM WRMPS 1999: sec.6.4.3)¹⁸

At the same time, given the relatively low level of funding the Ministry receives from government and the continued restructuring and downsizing of the civil service, the policy stresses demand management strategies. These promote commercialization of water for domestic and other purposes to control its use, and require that users increasingly assume costs, maintenance and, in some cases, ownership responsibilities. In rural areas, enhanced community participation and empowerment, called for in the policy, require rural people, NGOs and other organizations to progressively assume costs of installation, maintenance and repair of boreholes and gravity-fed piped water systems as government redefines its responsibilities and withdraws from these roles. As discussed below, a bewildering array of rural water programs sponsored by the Water Department, NGOs, churches and donors now exist in many rural areas, opening opportunities not only for increased access but also confusion, politicking, graft and corruption. In urban areas, the five Water Boards are placed on a solid commercial footing and are opened to private sector participation and investment. The policy also broadens Water Board responsibilities for sanitation and pollution control. Here, too, emphasis is given to cost recovery, pricing and creating a positive environment for private sector investment.

The new policy and draft law make different provisions with regard to water rights, and will need to be reconciled. The law recognizes permanent rights while the policy states that water allocation contracts should not be on a permanent basis but instead be given for "a reasonable period of time" (GOM WRMPS 2000: sec. 6.4.3:v). Permanent rights are recognized for the development of dams and other water storage, control or transfer facilities to promote

¹⁷ The draft law, on the other hand, states that the ownership of all public water is vested in the President while the control of public water is vested in the Minister.

¹⁸ "Domestic purposes" is defined as the provision of water for household and sanitary purposes and for the watering and dipping of stock (GOM Draft Water Act, May 1999:Part I:1).

investment. The policy and law recognize commercial transfer and trade of rights among users with the Minister's consent.

To examine if powers are being transferred from the Ministry to other entities, we considered provisions on new decentralized institutions and divisions of responsibilities, and community and stakeholder participation.

New Institutional Structures: The new Policy calls for responsibilities of the Ministry of Water Development and the Water Resources Board to be redefined and devolved to other new administrative structures. Following recent trends in international water management, Catchment Management Authorities (CMA) are to be created under the direction of the renamed National Water Resources Board and are assigned specific responsibilities. They will be commercially-oriented, government-owned institutions and are to establish their own operational modalities. Water User Associations (local community organizations) also may be organized under the authority of the CMAs.¹⁹ Table 1 identifies the responsibilities of these institutions. In some cases, the policy and draft law appear to require harmonization, as the law reserves more authority to the Minister than does the policy. The creation of this separate, elaborate management structure is an example of thinking from new blue prints rather than from the specific context and needs of Malawi. It is not clear how these new institutional structures will be coordinated with the Local Government reforms or how they will be financed, as sources of funding to support them are not identified.

Stakeholder and Community Participation: The policy stresses stakeholder, community, beneficiary and user group consultation and participation.²⁰ The strategy differs from that promulgated by most other environmental ministries where the emphasis is on CBNRM organizations at the local level. The water policy calls for stakeholders drawn from government and the private sector to serve on Water Boards, the National Water Resources Board (NWRB) and Catchment Management Authorities (CMA).

In some cases, these representatives are to be appointed (often by the Minister), while in others the selection procedure is not identified. The draft law, for example, calls for the Minister to appoint "suitably qualified persons of not less than ten or more than twelve to constitute a Technical Committee of a Catchment Management Authority" to carry out most catchment functions (GOM, Draft Water Law: Part VIII: sec 30). The law goes on to identify these members as representatives of ministries (Forestry, Fisheries, Agriculture and Irrigation, etc.) the National Water Resources Board, Water Boards, District Councils, and NGOs in the catchment area. Finally, the Minister is to appoint between two and four other members from the private sector to represent key stakeholders. The Minister has the power to appoint the committee Chair, while the Deputy Chair is to be elected by the committee itself. In this area as well, the policy and draft law appear to be at odds, with the law giving the Minister more power than the policy to select members of the NWRB and the CMAs.

The creation of Catchment Management Authorities and the reliance on this model of stakeholder participation in them may decentralize functions but, in its reliance on ministerial

¹⁹ The new policy states that Malawi has been divided into 17 major river basins which have been further subdivided into 78 water resource units (GOM, WRMPS 2000: sec.A.1.2).

²⁰ These terms are not well-defined and appear to be used interchangeably.

appointment, it does not fully democratize institutions. In most cases, there appears to be little downward accountability. Board and committee members answer to ministerial authorities rather than to public or private constituencies.

In addition to the stakeholder strategy, the policy calls for the “empowerment” of communities and beneficiary or user groups. The following phraseology—which captures both the desire to devolve authority and the need to recover costs and reduce government expenditures—is used throughout the policy document:

Patronize sustainable development concepts in water development and management based on participatory, value-based programmes and consultative approaches that keep the aspiration of stakeholders and interest groups alive through:

(i) The empowerment of the community or beneficiaries to own, operate, maintain and manage their own water facilities and services, with the involvement of the public and private sectors, NGOs and donors.

(ii) The empowerment of the community to own, manage and invest in water resources development and management schemes.... (GOM, WRPMS2000:5.2.6)

The goal is to hand over most rural water supply facilities to communities and “beneficiary user associations” in order to rapidly phase out government construction and maintenance responsibilities. The policy envisions partnerships among communities, NGOs and the private sector to provide rural water based on in-kind contributions from communities and/or the levying of fees and rates for water. In this respect, it is not clear what the recognized “right to water for domestic purposes” means if users must pay and assume many other related costs.

The 1994 policy document recognized women’s roles in the provision of water for domestic purposes, and it contained stipulations for their representation in community-based organizations. The new policy, with its broadened focus on water in economic production and environmental conservation, is silent on issues related to gender equity and representation. Similar to other new policy documents in the natural resource sector, the term “community” is used unproblematically, overlooking power relations and interests in water by gender, age and class which are present at the local level. In this sense, the concept of “equity” which appears repeatedly in the new water policy seem to refer primarily to the voices and interests of various economic and governmental sectors rather than to other dimensions of difference important at the local level such as gender and class.

The new water policy and draft act represent a substantial transformation from previous approaches. They broaden the Ministry’s mandate to encompass water resources used for productive purposes and for environmental conservation. They also devolve management authority to lower levels and transfer resources and responsibilities to communities, stakeholders and the private sector. As noted, however, in their present forms they do not promote downward accountability or local voice in decision-making despite the trappings of participation and empowerment. In many cases, they appear to represent a transfer of concepts currently popular in international water management and embraced by international lenders rather than Malawi’s specific circumstances and needs.

Local Government Act

Other governmental reforms underway in Malawi, particularly those involving the 1998 Local Government Act and the land reform measures now under discussion, magnify the uncertainties produced by the host of recently enacted environmental policies and laws. Here only local government reform will be considered.

CBNRM policies and legislation seek to directly empower communities and user groups. In most cases, these policies and laws require that local associations negotiate and enter into contracts with central government ministries to have their bylaws and other rules and regulations approved. However, the Local Government Act calls for reorganization of the operation of the line ministries with many of their powers devolved to districts. Almost all of the new environmental policies and laws, including the water policy and act, were written prior to or at the time of enactment of the Local Government Act and do not take the transfer of authority it mandates into account. The result is institutional, policy and legal uncertainty and confusion.

UNDP, DANIDA and other donors strongly support the local government reform.²¹ Central government is being significantly reoriented (and downsized) with most administrative and political functions transferred to the district and municipal levels under the control of District Commissioners (DC) and the newly elected District Assemblies (DA).²² The ministries affected include: Water; Health; Education; Lands; Housing; Physical Planning and Surveys; Fisheries; Forestry; Agriculture; Works and Supplies; Community Development; Commerce and Industry; Tourism; and parts of Environmental Affairs.²³ To avoid the overlap and lack of coordination among ministries which previously existed at the national level, their representatives in the districts will be integrated into a single administrative entity and will serve as a secretariat to the DA. Marking a significant change from the past, civil servants now will be accountable to the populations they serve. Heads of departments will be the direct subordinates to the DC, not their parent ministries in central government. Line ministries will retain responsibility for policy formation, enforcement, standards and training. Assemblies do face some restrictions. They are not permitted to take actions which are contrary to national

²¹ Other donors and most NGOs are ambivalent. Some CBNRM advocates and NGOs regard local government as another bureaucratic obstacle and resent possible curtailing of their autonomy.

²² The District Assembly consists of one elected member from each Ward in the local government area, Traditional Authorities and Sub-Traditional Authorities, members of Parliament and five representatives appointed by the Assembly to represent special interest groups. TAs, members of Parliament and representatives of special interests do not have voting powers. The title Chief Executive Officer was to replace that of District Commissioner but a decision was recently made to keep the old designation.

²³ Certain functions of line ministries will not be decentralized: "line ministries will retain responsibility over the following areas: policy formulation, policy enforcement, inspectorate, establishment of standards, training, curriculum development, international representation, etc." (see section 11.2 GOM, National Decentralization Policy 1998).

policies and laws, nor can they run at a financial loss beyond the level of approved borrowing.²⁴

The District Development Committee and Plan are the principal means by which integrated sectoral planning is to be achieved. Each district now has an Environmental District Officer (EDO) who reports directly to the DC, serves as secretary on the District Natural Resources and Environmental Management Subcommittee and acts as an advisor to that body and other bodies. The EDO takes a lead role in preparing a *District State of the Environment Report* and *District Environmental Action Plan*.

New institutions below the district level have active roles in program identification and planning. Table 2 presents the environmental management structure at the district level taken from a draft of the *Zomba District State of the Environment Report*. In theory, development initiatives should originate at the village level and be funneled upward, ultimately reaching the District Assemblies for review and funding. NGO programs and CBNRM initiatives which previously had operated with near total freedom or had interacted only with ministries in central government are now required to work through the newly-created local government structures. The result to date has been reluctance and sometimes resistance to curtailed autonomy. The following quote from an NGO representative at an environmental NGO meeting called to discuss decentralization illustrates this attitude:

The district decentralization is top-down—it is being imposed on districts and the districts make the communities invisible. They don't want them to be empowered. The issue of power is central. Are Area and Village Development Committees really to be empowered? How will they relate to CBOs and NGOs?

Even though the water policy and law were drafted at approximately the same time as the Local Government Act was passed, they do not take its provisions into account. Instead, as noted above, the Ministry of Water Development has proposed to create a parallel structure based on ecological units and involving the creation of Catchment Management Authorities appointed by and answerable to the National Water Resources Board and ultimately the Minister. While Catchment Management Authorities may make ecological sense, administratively they will require that district environmental plans be coordinated with their management and development activities. Such additional organizational structures will be expensive to operate as well.

The new decentralized local government system is to promote democracy, accountability and effective participation of the people. Not surprisingly, given its newness, the impacts to date are mixed—as will be discussed in the case study that follows. Taken as a whole, the policy and legal reforms Malawi has enacted since 1994 constitute a revolution in approach—one which echoes international trends in resource management but which, to be successful, will have to be adapted to Malawi's own circumstances. At this time, uncertainty and ambiguity abound.

²⁴ The DC is responsible for bringing to the Assembly's attention any proposed course of action that contradicts national policies or laws. Further, the Minister of Local Government can order an Assembly to halt certain actions and can suspend the Assembly pending review by the High Court. If the court finds the Assembly's actions unlawful or contrary to national policies, the President can dissolve the Assembly and call new elections within 90 days.

PART IV: CASE STUDY OF DECENTRALIZATION: WATER USE ALONG THE LIKANGALA RIVER, ZOMBA DISTRICT

To monitor how the above-described changes are being implemented at the district and local levels in Malawi, we selected Zomba District, located in the Southern Region, as a research site. Zomba is one of the few districts that have embraced the local government decentralization process with relative speed and for which some preliminary comments can be made. The District was selected for study for three additional reasons.

First, it is in the forefront of efforts to strengthen knowledge about and capacities to manage environmental resources, particularly through the auspices of the DANIDA-funded Lake Chilwa Wetland and Catchment Management Project. DANIDA supported the development of the *Lake Chilwa State of the Environment Report* (2000) and the *Lake Chilwa Management Plan* (2001) and also is assisting Zomba District in preparing its *State of the Environment Report and Management Plan*. Compared to most other districts in Malawi, considerable information exists on the environment in Zomba District and in the Lake Chilwa Catchment.²⁵ This indicates that Zomba District faces many of the same water-related environmental problems found elsewhere in Malawi and described in Part II—deforestation of catchments and streambanks, soil erosion and siltation of rivers and streams. Pollution of water resources, access to potable water and adequate sanitation facilities are also major problems.

Second, as one of the most densely populated areas of Malawi, Zomba District is home to a diverse array of water users, representative of many of those found in other districts in the country. Our field research focused on the Likangala River which originates on Zomba Mountain, makes a steep descent through Zomba Municipality and soon thereafter levels off on the lakeshore plain to make its way to Lake Chilwa. Located along its course are urban and peri-urban residents, businesses and large institutions in Zomba City (hospitals, army barracks, university, government offices), tobacco estates, irrigation schemes, fishing and farming communities, and protected wetland areas.

Third, Zomba District also was selected as a study site because it is home to one of Malawi's newest and largest dams. During the early and mid-1990s the area experienced severe water shortages due to recurrent droughts. These disrupted the functioning of many of the large institutions in the city and spurred the construction of the new dam. The Mulunguzi Dam located on Zomba plateau is designed to meet the water needs of the municipality and peri-urban areas through 2025.

Our investigation focuses on the implementation of institutional, administrative and policy reforms at the district level. It also has involved study of water use practices among four

²⁵ The Lake Chilwa Wetland and Catchment Project commissioned 20 reports on various aspects of the Lake Chilwa environment, including socioeconomic characteristics and gender profiles. These reports covered the full gambit of environment issues—forestry, fisheries, soils, livestock, water resources, etc. The Lake Chilwa Wetland State of the Environment (2000) was developed from these background reports and the Lake Chilwa Wetland Management Plan (2001) was an outgrowth of these studies as well. Lake Chilwa, Malawi's only Ramsar site, is an important stopover for many arctic and other migratory birds. It is one of the best-studied lakes in Africa. Lake Chilwa is of particular interest biologically because it periodically dries up, yet is one of the most productive fisheries in Malawi.

clusters of users living along the Likangala River: peri-urban residents of Zomba Municipality; estate owners and workers; irrigation scheme farmers; and farmer/fishers near Lake Chilwa. Research techniques included: semi-structured interviews with local government officials, representatives of ministries, administrators with the Southern Region Water Board, estate owners, NGOs and donor organizations; surveys of residents in the research clusters; and focus groups with water users. An important dimension of the study is the involvement of policy makers at district and national levels in the research process and the dissemination of results to them through workshops and other means.²⁶

Here we examine how environmental and local government reforms related to water resources are being implemented in Zomba District from the vantage point of the conditions we found in the study clusters. We focus on two processes: 1) the persistence of old structures and practices in new institutions and 2) the reliance on blueprint approaches to participation.

Persistence of Old Structures and Practices

Although Malawi became a multiparty state in 1994, in many areas district politics continue to be dominated by single parties. Almost all elected officials in Zomba Municipality and District are members of the United Democratic Front (UDF). Debates that take place in District and Municipal Assemblies therefore are not informed by differences in political party platforms. Nor, in many cases, do they represent the concerns of diverse constituents. Instead, they frequently continue to represent interests within the dominant political party. This lack of broad-based dialogue and debate allows older political practices to survive.²⁷ Three examples illustrate this point.

The first is related to opportunities for personal gain. Initiation of the District Assembly operations was slowed by a debate on conditions of service (sitting allowances and related issues) of interest to District Assembly members. Once these issues were resolved, other problems quickly emerged. While the Local Government Act transfers considerable powers to districts and municipalities, developing the institutional structures and skills needed to assume these responsibilities involves major transformations requiring time and training.²⁸ In the

²⁶ Toward this end, we began the research in 1998 by holding a one-day stakeholders meeting at the national level involving representatives from key ministries and programs in water resources to understand what issues and problems they identified as most salient. We have also been in regular contact with local- and district-level policy makers and administrators, NGOs and donor organizations working in the water resources sector in Zomba District. In March 2001, we held a workshop for District Assembly members where we presented an overview of the research project and our research findings. In July 2001, we presented some of the results at a BASIS policy makers workshop held in Johannesburg, South Africa, which was attended by the Deputy Director of the Ministry of Water Development, Malawi and the Deputy Director of the Lake Chilwa Wetlands Project, as well as policy makers involved in the water reform process in Zimbabwe.

²⁷ Local government reform has gotten off to a slow start. When the local government elections were held in November 2000, the turnout was very poor, perhaps reflecting voters' beliefs that little had really changed.

²⁸ Upgrading of Local Government skills is currently the focus of many donor programs in Malawi. The Lake Chilwa Wetland and Catchment Management Project will have such a focus in its new phase.

meanwhile, turnover of decision making powers and funds to local government officials has increased opportunities for some to profit, as recently occurred in Zomba Municipality when a high-ranking official in public health was accused of embezzling donor and NGO funds destined for health and sanitation projects.

The provision of boreholes has become a highly politicized development activity, open to graft and corruption as well. The pace of borehole construction increased substantially before the last general elections when the government announced a program to construct 3,000 boreholes nationally. The program was to be managed by the Ministry of Water Development, but the boreholes were allocated on the basis of political constituencies. This program provided ample opportunities for personal gain. A large number of boreholes were never actually constructed, while many of those that were drilled failed to produce water on a dependable basis. Estimates are that less than 50% of the boreholes were drilled and of these no more than 30% are functional (Degabriele 2001).²⁹ In February 2001, the *Malawi News* reported a controversy that emerged over the provision of boreholes in the Central Region. “The situation is worse in the Central Region especially in Nkhhotakota where newly sunk boreholes do not produce water, forcing the majority of rural poor masses to drink from unprotected sources and thus making them prone to water borne diseases.”³⁰ The drilling company in question was owned by the Minister of Information, although he denied the allegations.

In the Southern Region as well, these same problems emerged. Private drilling companies, often lacking the necessary technical expertise, have sprung up to meet the demand for borehole drilling. The World Bank-supported Malawi Social Action Fund, faced with the same problems, reverted to using Ministry of Water Development technical staff rather than unscrupulous local private contractors. Focus groups and interviews with water users indicated that the flow of many new boreholes was inadequate to meet expected needs. In these situations, while women no longer have to walk long distances, they often have to wait for hours to obtain water.³¹ Sometimes, rather than standing in line themselves, they leave their buckets and return a few hours later. In other cases, arguments develop. One informant in the Irrigation Sector noted that “there have been times when women fight for water here, specifically during the dry season when the water level goes down and one has to wait [for a long time] to fetch water.” In the winter dry season, many of these new boreholes ceased to function altogether.³²

We found that boreholes were often constructed near the homes of TAs or in sites selected by other powerful local actors. For example, at Mainuka Village in the peri-urban sector, the

²⁹ Degabriele (2001) reports that a verification exercise put forth by the technical staff of the Ministry of Water Development was turned down by a Ministry official whose company was involved in construction work.

³⁰ Reported in *The Malawi News* February 24—March 2, 2001, p.3.

³¹ Interview, Irrigation Sector dated 17 May 2000.

³² For example, a number of boreholes at Thundu School in the peri-urban sector and Ramsey 1 and Likapa villages in the Irrigation and Fisheries sectors do not produce any water, raising questions about where they were placed.

former Member of Parliament for the area arranged to have a borehole installed shortly before the 1999 elections to court voters. When he lost the election, his supporters vandalized it and stole the equipment.³³

The second way in which the persistence of earlier practices manifests itself is in the silencing or suppressing of information. In 2000, a Ministry of Water Development team of technicians collected water samples from 13 water sources in the research area. The fecal coliform counts at all sites, with only one exception, were considered too high for safe human consumption.³⁴ Readings were particularly high (fecal coliform count of 8000 per 100 ml) at the Likangala Health Centre, the source of primary medical care for many of the Lake Chilwa Basin's residents. Cholera is a persistent health problem reported during the rainy season at this clinic. The results of this survey were presented to the Ministry and to District officials. District officers sought to suppress publicity about the findings rather than taking direct action to address an issue of importance to local constituents.

The third example involves Traditional Authorities (TAs). As noted above, one feature of the new environmental laws and policies and of the Local Government reform is the empowering of communities to assume responsibilities for management of natural resources. TAs are identified and to date have served as key actors in this empowerment process. In part this is because of their longstanding positions of authority buttressed by Colonial authorities, by the Banda government and by the present government as well (i.e. TAs are ex-officio members of District Assemblies). Reliance on TAs for natural resource management, however, may serve as a convenient shortcut to participation, rather than the most effective strategy. TAs are easier for government officials and donors to reach and to organize than are people themselves. In essence, TAs have become a central component of the new blueprint approach to CBNRM in Malawi.

Assumptions about TA's "traditional" roles in the management of natural resources require scrutiny. Understandings of their present roles also require investigation, as these may be misguided as well. For example, the role of Chiefs and Headmen in the management of fisheries in southern Malawi appears to have varied considerably by place, and overall appears to have been quite limited. CBNRM policies that identify Headmen and Chiefs as key actors in newly-established Beach Village Committees and in Fisheries Associations have opened up opportunities for these authorities to expand their powers and access to resources, as well as to engage in bribery and corruption. Such practices have been reported in the Lake Chilwa Fisheries Association and elsewhere in the Southern Region.

³³ Interview: Mteche Village, Peri-Urban Sector dated 28 June 2000.

³⁴ Sites included the Likangala River, boreholes, hand-dug wells, the Likangala Irrigation scheme and health clinic and Kachulu Harbor on Lake Chilwa. BASIS paid for the transport of the technicians and for the chemical analysis at the Ministry Laboratory, as the Ministry lacks funds to carry out such surveys. Malawi Ministry of Water Development standards are that the fecal coliform count should not exceed 50 per 100ml of water. WHO standards are set a 0 per 100ml (Chavula and Mulwafu, 2001).

New Models: The Blueprint Approach to Participation

Zomba District is at the forefront of environmental reform in Malawi in part because of the presence of the DANIDA funded project which has produced the Lake Chilwa State of the Environment Report and Management Plan and which has assisted Zomba District Assembly in preparing similar reports and in implementing them. These documents embody the new environmental policies discussed above, particularly the focus on community participation.³⁵ Findings on water use from our four research clusters speak to the importance of taking the local context into account in designing participatory strategies rather than embracing blueprint models. Drawing on focus groups and interviews with water users, we discuss the limitations of four common participatory strategies.

Limits to the local: Our research indicates that many of the most acute water problems experienced by study communities were not local in origin and cannot be solved by community-based participatory strategies alone. These include pollution of river water and degradation of the watershed.

Zomba Municipal sewage system was designed in the 1950s for what was then a city of approximately 35,000, but which now numbers more than 85,000 people in the municipality. The treatment plant has virtually collapsed, resulting in the release of untreated sewage directly into the Likangala River. This includes sewage from the hospital, the army barracks, and the numerous other large institutions.³⁶ These practices result in high levels of fecal contamination in the river and in boreholes and wells located near the river as described above. Rural dwellers living downstream who depend on the river for drinking and bathing have suffered from dysentery, cholera, typhoid and scabies for years but by themselves could do little about the situation.

The second major problem reported by those we interviewed (and by researchers as well) was changes in the flow regime of the Likangala and other local rivers. Floods are increasingly common in the rainy season and smaller streams often stop flowing much earlier in the dry season than was the case a decade ago. These changes are due to the high rates of deforestation in the upper reaches of the catchment. Heavy loads of silt are deposited at the base of the plateau, causing river beds to fill and rivers to leave their banks. Other practices such as extensive sand and gravel excavation of riverbanks may contribute to the problem as well. Inadequate forestry regulations and enforcement, local farming practices, and the recent housing construction boom on Zomba Mountain all contribute to the flooding and drying of streams and rivers that downstream residents face.

Neither of these serious water-related problems can be adequately addressed at the community level as they are caused by powerful exogenous actors. Efforts being made to encourage villagers to build sediment catchment boxes along rivers and streams to learn about

³⁵ Unlike some other donor-funded projects, however, DANIDA has placed emphasis on working with and strengthening the capacities of local government to manage environmental resources rather than focusing only on community-based initiatives.

³⁶ Problems of pollution occur on a smaller scale as well. Other sources of water contamination include drainage from old or poorly situated septic tanks and pit latrines, and dumping of refuse into the river by a variety of businesses and residents themselves.

siltation may provide further data but these activities cannot solve the problem (Jamu et al. 2001). Similarly, promotion of sanitary practices around village wells and boreholes will not address the pollution of groundwater and shallow aquifers caused by the city's faulty sewage treatment plant. Strong anti-pollution regulations and penalties for non-compliance are required.³⁷ Existing legislation and fines are inadequate, and are seldom enforced or levied. For example, in early 2000 Zomba Municipality received only a small fine from the Water Resources Board for dumping sewage into the Likangala River. More effective than the fine itself was the negative publicity in the press, which speeds identification of a donor loan to upgrade the sewage treatment plant.³⁸

Limits to a community or household focus: Our research indicates that women and men often have different interests in and responsibilities for water use. Women in the study area are generally responsible for provisioning water for domestic use but this task can often be delegated to other family members, especially young women and girls. The matrilineal descent system and matrilocal residence practiced in the area mean that women have well recognized rights to land and play a major role in agricultural production as well. A large literature now exists documenting gendered rights to land, water and other natural resources, but these insights are not often integrated into participatory programs.³⁹ Most CBNRM strategies in Malawi regard community members or users as a homogeneous group and focus principally on developing means to limit outsiders' access to the resource in question. Where gender is taken into account, women's interests are considered to be restricted to the domestic sphere, and they are not involved in new decision-making bodies like the proposed Catchment Management Authorities. Even in cases where women are included on committees, their roles are circumscribed. For example, although Ministry of Water Development regulations require that borehole committees include at least two women, their role is limited to maintenance and upkeep, and rarely includes management or decision-making responsibilities.

Similar to other SADC countries adopting the international principles of water management, provisions in Malawi's new water policy and law concerning rights to water for domestic use may ultimately represent simply lip-service to the needs of poor households. Increasingly, as will be noted below, various types of user fees for primary water are being instituted. While policies state that rates for the poor are to be subsidized, considerable pressure exists to raise these minimal rates as commercial providers, such as the Water Boards, are under pressure to repay loans and make profits.⁴⁰ In Zomba Municipality, for example, water from the Southern

³⁷ The Comment section in the Daily Times (Friday, March 2, 2001), entitled "Fine Merely Token," called attention to pollution of other rivers in Malawi. Discussing the situation in Blantyre, the largest city, the commentator noted: "Pollution is so complete in these rivers that the Likangalas and Lumbadzis (in Lilongwe) look like something a kid spilled in the backyard when compared to the Blantyre scenario. Why no prosecution? Because there has been no Assembly? It is there now" (p.10).

³⁸ The World Bank, through the Environmental Affairs Department, agreed to fund the project. The draft water law contains provision for heavier fines, but it is not yet approved by Parliament.

³⁹ For case studies see for example I. Guijt and M. Shah (1998) *The Myth of the Community: Gender Issues in Participatory Development*. London: IT Publications.

⁴⁰ Often this "subsidy" takes the form of graduated rates for amount of water used: a certain amount is guaranteed at a low rate; use beyond that amount is charged at progressively higher rates.

Region Water Board's newly constructed Mulunguzi dam is not likely to reach many downstream residents outside town limits. This is not because the dam lacks water capacity, but because these users lack the capacity to pay at rates comparable to peri-urban residences of Blantyre, where the excess water is likely to be piped. Here again, in studies considering willingness or abilities to pay, there is little reason to treat the household as a homogeneous unit, as women and men in it have different responsibilities for and abilities to pay for water.

Limits to local resource management capacities: Most environmental reforms described in Part III were initiated by individual ministries and require that user groups—usually villages—organize committees to manage local forests, fisheries, water and other environmental resources. Many other ministries have implemented similar reforms transferring responsibilities to the local level as well. For example, the Ministry of Health, the Ministry of Education, and the Ministry of Agriculture and Irrigation, among others, require that committees be organized to build, maintain and manage health clinics, schools and irrigation schemes. When considered from the perspective of an individual ministry, such an approach may appear to promote ownership. When viewed from a local vantage point, however, the results are untenable as they involve creating, participating in and contributing work and funds to a plethora of village-level committees.

Water sources illustrate the problem. In the research clusters, boreholes and protected wells are being constructed by the Water Department, NGOs (such as InterAid), churches and by donor-sponsored programs (such as the World Bank-funded Malawi Social Action Fund).⁴¹ All require villagers to organize themselves and to contribute to the venture in different ways. Often two or more such projects, sponsored by different organizations and requiring different forms of “participation,” co-exist in the same locale. Further, borehole maintenance usually is a separate activity from construction. It falls under the purview of the Ministry of Health which requires that a committee be established to ensure sanitary practices. Not surprisingly, our research indicates that most of these village-level committees are non-functional and exist only on paper.⁴² This is not an indication of lack of local concern with water sources, but rather reflects both the nature of “participation” required and unidimensional, uncoordinated ministerial, NGO and donor participatory requirements. This example illustrates the challenges District Assemblies will face in carrying out integrated sectoral planning. As noted above, many of the NGOs and donor programs are reluctant to have their autonomy reduced, preferring to work directly with communities rather than through newly-established local government structures.

The Lake Chilwa Wetlands Project has made efforts to avoid the proliferation of committees for each natural resource by forming a generic village-level Natural Resources Committee, headed by traditional authorities. This approach is also being adopted by Zomba District. At this early stage, it is too soon to say whether this will address the problem. Another alternative

⁴¹ Better-off village households also construct wells and boreholes on their premises, which may be available for wider use on various terms.

⁴² Where they are active, it appears that often many of the same people serve on most committees in the village—often older males.

being explored is to organize more broadly-based user associations for forest, fisheries and other natural resources consisting of representatives from various villages in a locale.⁴³

Limits to proposed empowerment strategies: As noted Part III, the new water policy and law and the new irrigation policy and law call for construction and maintenance of infrastructure and other ownership responsibilities to be handed over to villages, user groups, associations and scheme participants. This is couched in terms of empowering users whereas, in many cases, it more accurately represents the government's effort to reduce its responsibilities and expenditures. In our study area almost all of the infrastructure to be devolved is in a state of near total collapse. This includes the irrigated rice schemes, the gravity-fed rural piped water scheme, and many of the wells and boreholes. This policy thus might better be called "pulling out" rather than "handing over" since, in many instances, there is little of value for the community or user group to assume. Reviewing literature from Nepal and the Philippines, Ostrom points out that this ill-guided strategy lacks theoretical and empirical foundation. She notes that:

It is one thing to self-organize to create your own property and slowly develop the rules of association that enable a group to benefit from the long-term management of the resource. It is quite something else to have a government tell you that now you have to manage something that the government can no longer handle itself. Especially after you have been told that it is the government's responsibility to do this for you. (2000:34)

The irrigation policy calls for upgrading of facilities prior to scheme users assuming control, and a small number of such pilot efforts are underway elsewhere in the country with funding from donor organizations. However, it is not clear where support will be found to upgrade most other facilities or, equally importantly, what voice the soon-to-be new owners have in the rehabilitation process.

Responsibility for urban water provision now lies in the hands of the five Water Boards as a commercial undertaking. The government has called for communities and "beneficiary user associations" to rapidly assume responsibilities for rural water supply.⁴⁴ The policy envisions partnerships among communities, NGOs and the private sector to provide rural water based on in-kind contributions from communities and/or the levying of fees and rates for water. If the information reviewed above regarding borehole construction in the study area is any indication, there is little to recommend such an approach as it is currently being implemented.

PART V. CONCLUSIONS AND RECOMMENDATIONS

This paper has highlighted some of the competing narratives and uneasy alliances that presently exist in governance strategies in Malawi. This includes the conjunction of interests between a nearly bankrupt state under pressure to "hand over" responsibilities and infrastructure that it can no longer meet or afford, and the advocates of local government and

⁴³ In the first case, natural resource committees might be too generic to inspire participation, while in the case of user associations, the local dimensions might be overlooked.

⁴⁴ The Water Policy called for this transfer to be accomplished before the ink was dry on the policy paper. It also makes few provisions for upgrading of presently collapsed systems.

CBNRM who are seeking to devolve authority, change the direction of accountability, empower people and conserve resources. It reveals politicized debates between ministries and districts as they seek to redefine their roles vis-a-vis each other and the newly emerging community and user groups. It discloses tensions between NGOs and donors advocating solutions on the local level and those attempting to craft hybrid arrangements involving government structures and local empowerment strategies. The case study examines how these tensions are manifest at the local level along the Likangala River. It illustrates the need for a situated and contextualized approach to water resources management rather than popular blueprint models adopted whole-cloth from the CBNRM literature or international principles of water resource management. The following specific points and recommendations emerge from the policy review and case study:

- The pace of change in Malawi's environmental sector has been very rapid, with almost all policies and laws revised in little more than five years. Specialists are hard-pressed to keep up with these transformations. In most cases, the public has yet to learn about them and few actually have been implemented. Much will need to be done to bring them to people's attention. Funds will have to be identified for training and capacity-building at all levels to offset the legacy of top-down planning and implementation that was the norm in Malawi until very recently.
- Many of the new environmental policies and laws were written before the Local Government Act was passed and do not take its provisions into account. Specifically, the new environmental legislation vests powers in line ministries in central government and, in many cases, does not recognize devolution of authority to districts. The laws and policies envision a relationship between individual communities or user groups and the Minister to negotiate resource management agreements. Besides potentially generating a considerable volume of work in central government, they will have to be revised to take into account the Local Government Act. Before doing so, agreements should be reached for greater coordination across ministries. Presently the laws and policies in each environmental sector promote the formation of user groups or committees, usually at the community level. As noted, this results in a proliferation of committees in villages where people are struggling to earn a living. Our research indicates that often it is the same people who sit on these committees, committee responsibilities may overlap with those of other committees and many committees are inactive. Ministries need to cooperate at the local level in forming these groups. In addition, user associations which bring together interested parties from a wider area might prove more manageable and more effective as well.
- Water is central in efforts to alleviate poverty and for environmental conservation, yet it has not fully captured the attention of government. In part this may be because water falls under the mandate of numerous ministries—health, fisheries, parks, forestry, agriculture and irrigation, etc. The new focus on productive uses of water and catchment management might assist the Ministry of Water Development in gaining more voice in water resources management and larger budgetary allocations.
- The Ministry of Water Development proposes to create Catchment Management Authorities which will have responsibilities for the control and development of water resources within the catchment areas. At the same time, the Local Government Act states that many of these functions are to be carried out at the district level. How will Catchment

Management Authority functions be coordinated with district planning? In many cases, catchments will include areas in a number of districts. What sustainable funding base will support Catchment Management Authorities?

- The Ministry of Water Development plans to devolve many of its functions and responsibilities to the National Water Resources Board and Catchment Management Authorities. The draft policy and law suggest that many of these members are to be appointed representatives from other ministries. This raises questions about the scope of representation and the direction of accountability on CMAs. A broadened definition of stakeholders and more democratic processes of selection may make these organizations more effective. Representatives from other user groups should be added—particularly women, whose responsibility it generally is to provision households with water for domestic use and who also engage in a wide range of farming and other income activities.
- Our studies in Zomba District indicate that many rural people recognize a right to water which is not expressed solely in economic terms. While recent policies and laws in the environmental arena, including the new draft water policy and law, promote the commodification of resources as a means of recognizing their value and of alleviating poverty, other understandings of value also need to be more fully explored. These might serve as strong rationales and motivators for conserving trees, watersheds, water sources and other natural resources. The CBNRM literature in Malawi indicates that in some areas of the Southern Region, natural resources are so depleted that little income can be generated from them. Other non-economic rationales for conservation and for apportioning access and use need to be explored.
- Malawi could set an example in the region by expanding the voice and representation of women in the water reform process. The shift from supply-side approaches and potable water and sanitation concerns to broad-based production and catchment conservation issues has rendered women invisible in the draft policy document. Women play a major role in agricultural production and marketing and they rely on a wide array of natural resources as well. They should be featured in the new water policy and efforts should be made to include them in newly-formed decision-making bodies at all levels. The new Irrigation Policy and Development Strategy (2000) may serve as an example. The case study reveals numerous conflicts among water users along the Likangala River. It suggests that the widespread notion that overpopulation and poverty are at the root of environmental degradation needs to be tempered. Many of the environmental problems we identified were caused by the more affluent population, not the poor. Further, as many of these problems did not originate where they were most experienced, it is unlikely the CBNRM strategies—popular with NGOs and USAID and incorporated in most new environmental legislation—will be sufficient to solve the problems. Equitable means of conflict resolution and resource conservation will need to be developed at the district or catchment level.

Table 1. Institutional Roles and Responsibilities: Ministry of Water Development, 1999 Draft Water Resources Development Policy and Strategies

Institution	Responsibilities
Ministry of Water Development	Policy making, monitoring, assessment, planning, conservation, allocation of water resources Planning, development and coordination of rural water supply and sanitation services Regulation of activities of Water Boards
National Water Resource Board	Coordination of activities of Catchment Management Authorities Regulation of water resources development and operation Advising on protection and management of catchments Advising on the establishment of water user associations, especially for rural piped water supply schemes, fisheries and irrigation
Catchment Management Authorities	Control and development of water resources within the catchment areas, including allocation of water to users Monitoring and assessment of surface and groundwater resources in the catchment areas Determination of investments, expenses, fees, operating costs and compensations related to the control, development and management of water resources
Local Community Organizations	Not specified

Source: Adapted from GOM, Environmental Affairs Department (2000: 5:4).

Table 2. Zomba District: Institutional Framework for the Environment

DISTRICT DEVELOPMENT COMMITTEE

Membership: Members of Assembly (MA)—voting members; Traditional Authorities, NGOs—non-voting

Chair: Assembly chairman—elected by MAs

Function: To determine policy and discuss and approve annual work plans and progress reports, approve micro-projects

Meetings: Quarterly and ad hoc

DISTRICT EXECUTIVE COMMITTEE—DISTRICT SECRETARIAT

Membership: Heads of departments of line ministries and NGOs

Chair: District Commissioner

Function: Advise the District Assembly on technical matters

Meetings: Monthly

DISTRICT NATURAL RESOURCES AND ENVIRONMENTAL MANAGEMENT SUBCOMMITTEE

Membership: Heads of departments concerned with natural resources, NGOs, research agencies or institutions

Chair: District Director of Planning

Secretary: Environmental District Officer

Function: Environmental coordination, planning and monitoring

Meetings: Monthly

AREA DEVELOPMENT COMMITTEE (ADC)

Membership: Traditional Authorities

Chair: TA

AREA EXECUTIVE COMMITTEE

Membership: Front-line staff

Function: Technical Arm to ADC

VILLAGE DEVELOPMENT COMMITTEE

Membership: Group village headmen

Function: Planning and decision-making

COMMUNITY BASED NATURAL RESOURCE MANAGEMENT COMMITTEE

Membership: Villagers

Function: Implementation of natural resource management

Source: Zomba District State of the Environment Report, draft, 2001.

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