

Catchment Management Agencies for poverty eradication in South Africa

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ABSTRACT

This paper discusses the changes in the water law under the new dispensation in South Africa from a poverty perspective. The focus is on the early experiences of implementation of one of the components of the National Water Act: establishing Catchment Management Agencies. From the diversity of experiences in decentralizing integrated water management, key areas emerge where steering by the government is crucial to establish pro-poor, developmental Catchment Management Agencies.

Keywords: *poverty, water, integrated water resources management, catchment management agency, water law, South Africa*

1. INTRODUCTION

The National Water Act (1998) of the Republic of South Africa (RSA 1998) is not only widely recognized as the most comprehensive water law in the world, but also stipulates, clearer than elsewhere, that water is essentially a tool to transform society towards social and environmental justice and poverty eradication. As such, the National Water Act is undoubtedly a masterwork among the socio-political changes of the 1990s in which the Apartheid regime was replaced by a democratically elected government. The new law represents a fundamental legal reform in the country, because it shifted the locus of formal water control from riparian water title holders, largely consisting of the white minority, to the new government as custodian of the nation's water resources. However, this legacy of the past continues to influence the implementation of the new Act, an endeavor that the Department of Water Affairs and Forestry has started through a broad array of simultaneous actions.

This paper focuses on the implementation of a key component of the National Water Act, the establishment of Catchment Management Agencies (CMAs), from the perspective of the contribution to poverty eradication in rural South Africa. Although the establishment of CMAs is still very recent and limited to pilot sites, insightful lessons are emerging for future developments. First, we conceptualize the contribution of water and integrated water resources management to poverty eradication (Section Two). Section Three sketches the historical changes in water legislation and presents the relevant components of the National Water Act. In Section Four, three modes of CMA establishment are described, based on evidence from pilot processes. The conclusions highlight areas of critical concern for the new developmental CMAs if they aim to contribute to poverty eradication.

2. WATER FOR POVERTY ERADICATION

Almost 50% of South Africa's population is income poor, spending less than R353 per adult equivalent (USD60) per month. More than one quarter, 10/12 million people, are without clean water. Child malnutrition is widespread. National stunting rates for young children range between

23% and 27%, and are as high as 38% in poorest 20% of households. 33% of children display marginal vitamin A status. Unemployment rates in 1999 were 52% for African women between 15 and 65 years, and 37% among men (Statistics South Africa 1999). As elsewhere in the world, the majority of the poor, 70 %, live in rural areas. In no other country in the world income distribution is so unequal as in South Africa. The distribution of land resources is also highly skewed. 13% of the population owns 87% of land (Lahiff 1999; Cousins 2000). Gaps in access to water appear even wider. 95% of water for irrigation is primarily used by large-scale farmers, while smallholders have access to the remaining 5% (De Lange 1998). In the Mhlatuze Basin in Kwa-zulu Natal, more than 97% of available water resources are used by 10% of the population, although a small part of the benefits from this water use does trickle down (Steyl et al. 2000). Combating this poverty is the primary goal of the government of South Africa and therefore of the Department of Water Affairs and Forestry, through the National Water Act.

In South Africa and elsewhere, poverty, poverty eradication, and water are linked in many respects. Poverty is a state and process of multi-dimensional human deprivation affecting economic, health-related, psychological, socio-cultural, legal, and political facets of wellbeing (World Bank 2000/2001). This links to the various ways in which water serves human life. Household water for drinking, hygiene, and cooking contributes to health and nutrition. Water as input in rural productive activities contributes to income generation through farming, livestock, forestry, fisheries, power generation, navigation, and small and large industries. The esthetic and recreational values of water allow tourism. But water also brings adversities, like floods and soil erosion.

Water deprivation is intrinsic to poverty. Poor people lacking the assets and means to access clean water are forced to drink water of low quality, often against excessive labor or cash costs especially during periods of drought. Water-borne diseases are aggravated because poor people lack access to health services. Adversities of flooding, inundations, landslides, and other natural and human-made water-related disaster tend to hit poor people hardest because their lack of alternative means forces them to occupy flood-prone and risky lands. The impact of negative events like drought and flooding is worst for the poor and vulnerable. Without any buffer for recovery, one lost harvest, one illness, or one debt can easily result in a downward spiral from which it is extremely difficult to escape.

Being poor often also means being denied the right to water to produce. The development of infrastructure for economic development in society tends to serve those who already have the land, capital, skills, and markets to make use of water. Even though there is evidence that small farmers use their limited land more productively than large farmers, among others through water harvesting and irrigation, efforts to develop technologies fit for small-scale use used to be limited, although they are slowly increasing. Nevertheless, droughts continue to hamper poor people's production, to limit their incomes, and to intensify crises for which they have no resilience. This blocks millions of rural people into a labor reserve dependent upon wage labor in large-scale farms, mines, industries and services, and on food purchased on the markets of the large farms. The fact that small-scale enterprises 'fail to provide a decent family income' is, ironically and naively, even used as argument to justify continuing deprivation of poor people from the opportunities that water represents to use scarce land and other resources more productively.

Poor people's water deprivation is the result of and perpetuated by society's hierarchies in water resources development, management, and protection. Few obtain the assets to use large quantities of water and acquire the socio-political and legal power to assure their permanent access to water. Without the assets to capture water as effectively as the more powerful, poor people are already excluded from water decision-making. This is further reinforced by poor people's general social exclusion from public governance. Poor people's ability to effectively participate in public decision-making is hampered by sub-standard education, literacy, language knowledge, mobility, access to information and social and political organization both within and

outside their neighborhoods. Moreover, the rules and regulations that shape their communal lives tend to be ignored. The poor, the only people in this world who suffer from life-threatening water-scarcity, become the 'nobodies', internalizing prejudices and less self-confident to challenge a hostile outer world. Thus, poor people's low water demand is a social construct.

As a corollary, water resources development, management and control can contribute to poverty eradication if it boosts water demand among the poor for their improved wellbeing in terms of health, incomes, assets, resilience, socio-political and legal inclusion, and say over their lives. We will analyze the recent events in South Africa from this perspective.

3. TRANSFORMING WATER LAW UNDER THE NEW DISPENSATION

Changes in Water Law

Before 1994, jurisdiction over water followed the geographical segregation under the Apartheid regime. The Department of Water Affairs served the former white Republic of South Africa, while in the homelands water authority was vested in the homeland governments, locally represented by tribal chiefs and councils. Whereas each homeland government implemented this responsibility in its own way, rural drinking water supply and the development of state-subsidized irrigation schemes in collaboration with Development Corporations were often part of homeland water affairs.

In the former white RSA, water rights were primarily vested in riparian right holders. Commercial farmers, an important constituency of the Apartheid government, were well served by the Department of Water Affairs through highly subsidized scheme and dam development. Gradually, however, DWAF started shifting focus to other important water users, such as power generation and industries, and also intensified water quality management. By mid-1980s, the first basin studies were undertaken, in collaboration with consultancy firms that accumulated expertise for the area in which they were active. The first ideas for Catchment Management Agencies also originate from that period (DWAF 1986).

Among water users in the white former RSA, a considerable degree of self-management had crystallized. Elected Irrigation Boards managed large-scale irrigation schemes and their representatives participated effectively in national farmer organizations. Portions of rivers, in which farmers had built weirs, were governed collectively. Large-scale water users also started to organize at basin level. For example in 1992 the Olifants River Forum was initiated to promote more coordination between the mines and the Kruger Park downstream of the Olifants River, and the mines, industries, and ESKOM (electricity generation) upstream, in a common pursuit of a 'healthy river'.

The transformation of the water law was integral part of the political events arising out of the end to the Apartheid Era in 1994. Under eminent leadership of the Minister of Water Affairs and Forestry, Kader Asmal, a process was launched to incorporate public views nation-wide and to harness global knowledge for the formulation of the National Water Act, which was finally promulgated in 1998. In the new Act, water management ceased being an end in itself, but became explicitly instrumental to the country's overall economic development goals in which poverty eradication and redress of inequities figure high. The Act further includes preservation of water for ecological purposes, integration of surface and groundwater, gradual decentralization of water management to the lowest appropriate level and self-financing, public participation and community involvement, and, the shift from administrative to hydrological basin boundaries for water management.

In promulgating the new law, the government abolished the former system of riparian law and took over all water management authority as custodian of the nation's water resources. With the abolishment of the homelands DWAF's jurisdiction became nation-wide. However, the status quo was maintained in the sense that the National Water Act recognizes all water use in the two years

preceding the promulgation of the Act as lawful, and, hence, also accepts the prevailing inequities as starting point. Moreover, there were no retrenchments in the government administrative services in the new dispensation, resulting in the new approach to water resources management being implemented by many of the officials responsible for implementing the previous inequitable legislation.

Perhaps the greatest achievement in formulating the National Water Act is that the most diverse stakeholders in the 'Rainbow Nation' not only endorsed the law but that they also took pride in this unique piece of legislation.

Pro-poor Components of the NWA

Components in the National Water Act that can contribute most concretely to poverty eradication, besides pro-poor CMAs, are the following.

a. The Water Reserve and drinking water supply services

The Water Reserve, which is allocated before any other use, includes an Ecological Reserve and basic water needs for human consumption. Current policy has set these basic consumption needs at 25 liters per person per day. Moreover, in 2000 the government decided to provide the first 6000 liters per household for free.

Implementation is primarily a matter of infrastructure development and institution building to overcome the backlog of the Apartheid Era, which ranks South Africa at only the 31st place of all African countries in performance of rural water supply. Since 1994 DWAF became responsible for this implementation, as elaborated in the Water Services Act of 1997 (RSA 1997). While former homeland governments had experience with rural water supply, including reticulation, this was a new task for DWAF, because till then it had only supplied bulk water to water boards and municipalities in the white areas. The Mvula Trust was established to provide the needed institutional and technical support. At longer term, the new democratically elected local governments and municipalities are expected to take up the responsibilities of water reticulation in rural areas.

b. Compulsory Licensing

The National Water Act includes the option for DWAF to call for compulsory licensing where and when needed. A project of compulsory licensing concerns all water users in a specific area. It cancels all existing licenses and replaces these on the basis of a new allocation schedule. Redressing inequities from the past and addressing over-allocation are key criteria for the reallocation. Implementation of compulsory licensing is currently being prepared for highly water-stressed pilot areas.

Recent calculations of the Ecological Reserve in some of these water-stressed basins indicate unexpectedly high quantities of water needed to maintain the aquatic ecosystem, and, hence an even stronger need for compulsory licensing and cutting back water use from current users. However, DWAF is considering, among others, *not* to cut water used by historically disadvantaged small-scale users.

c. Schedule 1

A tool for water authorization that may favor poor people further is the so-called Schedule 1 of the NWA, which stipulates which water uses are permissible under any condition. According to the National Water Act this concerns water used for reasonable domestic use, livestock other than feedlots, and 'small gardening not for commercial purposes'. However, it is increasingly realized that farming and gardening by poor farmers is often market-oriented, at least for a part of the harvest. It is certainly expected to become more market-oriented in the near future. Therefore, it should be considered whether to extend permissible water use under Schedule 1 to include the

use of low volumes of water on say, less than two hectares, or for an income around or slightly above the poverty line. This would also accommodate for the practical impossibility to trace millions of low-volume water users in water-stressed basins for formal registration and authorization.

d. Cooperative governance

Generally, the South African government strongly emphasizes the need for strong horizontal and vertical cooperative governance between the various government agencies. Thus, better collaboration between the Department of Water Affairs and Forestry and the National and Provincial Departments of Agriculture is crystallizing. This has already led to a new national policy to increase productivity of agricultural water use by smallholders that encompasses water, access to land, markets, credits, skill development, etc.. Links have also been established with the Presidential Integrated Rural Development Program that is to be implemented through the Local Governments.

Cooperative governance between DWAF, the Local Government, and other line agencies, in close consultation with communities, is especially important for pro-poor water development and management in rural areas. Local Government is constitutionally the agency responsible for new water supply and sanitation services. It is also responsible for storm water management. In the near future, the Local Government is also expected to become more important in promoting water development for productive uses. An integrated approach to water development and management with strong people's participation is most essential in rural communities, where the same water source is used simultaneously for drinking, domestic and a diverse range of productive purposes. Sanitation and waste management often directly affect other water sources as well. Water development for one group of villagers easily affects other users jeopardizing fulfillment of people's basic needs. Cooperating government services that respect indigenous water tenure and foster community-based integrated water management could considerably improve poor people's benefits from water.

Catchment Management Agencies

The new governance body through which many components of the National Water Act will be implemented is the Catchment Management Agency. The Minister of Water Affairs and Forestry will establish CMAs in the 19 Water Management Areas of South Africa and gradually assign many water resource management powers that are currently carried out by the DWAF to these new governance structures. Ultimately, the CMA will carry out functions such as water resources planning in the catchment, registration, water charge collection, and water authorization. Public participation and representation in the establishment process and in the later Governing Board and activities of the CMAs are legally required. In the Governing Board the interests of water users, potential water users, local and provincial government and environmental interest groups will be represented. CMAs are to become self-financing.

This major change from a centralized management approach based on command and control to a decentralized participatory model based on cooperative governance and coordination through CMAs is currently being implemented. Parallel to the process of establishing CMAs, DWAF itself is being restructured. The remaining national functions of DWAF are being defined, DWAF regional offices are being restructured and preparations have started in restructuring some DWAF regional staff into technical support structures of the CMA in the new Water Management Areas. As long as CMAs are still being established and maturing, DWAF continues carrying out all functions that are not yet taken up by CMAs. The focus of the rest of this paper is on the pioneering efforts to formally establish CMAs through public participation.

4. MODES OF CMA ESTABLISHMENT

Since the earliest proposals for catchment-based management 15 years ago, DWAF and the public, or the public alone, launched numerous new initiatives countrywide for managing sub-catchments or catchments. The nature of these initiatives highly varies and depends upon the socio-economic and ecological context, main drivers of the process, availability of financial support from DWAF or donors, historical availability of technical expertise and specific projects, composition and work style of regional DWAF offices, etc.. There is also considerable difference in the interpretation of the purpose of the establishment process and the extent and form of public participation, representation, and feedback loops. In this early pioneering stage with new forms of management, variation is most fruitful, because it highlights the wide range of options open for the future. In order to give an impression of the variation, three diverging modes of CMA establishment and public participation are elaborated below, based on evidence from the Olifants River Basin and the three Water Management Areas in Kwa-zulu Natal. The focus is on differences so there is no attempt to give a complete description of each approach (Muller 2001; Ligthelm 2001).

Formulation of a technical proposal for CMA establishment

The first mode of CMA establishment can be characterized as a 'formulation of a technical proposal for CMA establishment'. The main purpose was to submit to the Minister a formal proposal for a CMA that includes the available technical data. (White) technical consultants with historic technical expertise in the areas concerned were appointed by DWAF to play active part in the process of CMA establishment and proposal writing. The public participation processes built upon earlier initiatives of public participation, especially by large-scale farmers, mines, tourist industry, ESKOM (electricity), and industries. In fact, the option was considered that these existing forums and other public institutions themselves would become the CMA, who then would take the process from there. This option was strongly supported among these public initiatives, but ultimately rejected by DWAF who wanted the future CMAs to be inclusive from the start onwards.

Two rounds of public meetings throughout the basin were organized, also in order to bring the historically disadvantaged groups in society on board for information and consultation. Written invitations for these public meetings were sent to all contacts of DWAF and the consultants, including local governments, tribal authorities, traditional healers, etc.. New contacts between DWAF and rural communities were established in this way. The public meetings consisted primarily of information provision on the concept of CMAs and basin-level management with public participation, and, in the second rounds, on the structures that the consultants and DWAF proposed for the future CMA. The main language was English. Invariably, poor rural communities raised the issue of drinking water problems. For those and other problems, people were referred to the relevant other authorities within DWAF. The CMA was seen as one of the many parallel processes in which DWAF interacts with the public and tries to avoid duplication.

The first round of public meetings was also used to invite volunteers from the historically disadvantaged communities to take seat in a Stakeholder Reference Group. This small group, partly consisting of the former contacts of the consultants and DWAF, discussed the CMA proposal more in-depth. As the black participants were not invited to clearly represent a constituency, there were seldom feedback loops to others.

A draft proposal, which the Stakeholder Reference Group has not seen anymore, has been finalized. This will be either submitted or revised depending upon the formal guidelines for proposals to the Minister on CMA establishment that are currently being finalized. Inclusive public participation is a key criterion for acceptance in these guidelines. A newsletter will soon be made to inform stakeholders about the state of affairs.

Bottom-up reconnaissance for CMA establishment

The second approach, that we call a 'bottom-up reconnaissance for CMA establishment' aimed at informing historically disadvantaged communities about the new CMA, at assessing their water-related needs, and at soliciting suggestions for a governance structure that can effectively influence the CMA. It was initiated by DWAF to complement the first approach that was increasingly acknowledged to rely too strongly on those who were already well organized. If small-scale water users were to be brought on board, DWAF also needed to accommodate for the huge arrears in poor communities' information and contacts with DWAF, recognized and effective representation structures, knowledge of English, mobility, experience in state consultation processes, etc.

The main implementer of the process was a (black) social facilitator-cum-community developer. Her network of contacts throughout the basin originated from the anti-Apartheid struggle and ongoing rural development activities, while Local Governments and NGOs facilitated the logistics of the meetings.

Daylong workshops in the local language generated overviews of the problems participants experienced with regard to water. This included drinking water, often as top priority, but also rainfed and irrigated agriculture, and issues indirectly related to productive water use, such as the lack of markets, inputs and training for both irrigated and rainfed agriculture, and frustrations about the slow pace of the land reform. Concrete suggestions to organize in multi-tiered small-scale water users forums for effective representation in the future CMA Governing Board and committees were made. The report of these workshops was included in the technical proposal.

While waiting for DWAF's follow-up on the submitted overall proposal, the social facilitator-cum-development worker continues exploring water-related issues in poor communities. Where needed she mediates between communities and DWAF to solve issues, such as excessive groundwater abstraction by mines, which causes boreholes for domestic water supply in neighboring communities to dry up. Stimulating more people, especially women, to use more water more productively, for example through water harvesting for homestead gardening and trees, is integrated part of this mode of (sub-) catchment management.

Decentralization of integrated water resources management for CMA establishment

In the third approach, 'decentralization of integrated water resources management for CMA establishment', the Regional Office of DWAF drives the process of establishing CMAs in Water Management Areas with additional support of only few hired social facilitators. From the start onwards, the emphasis is on establishing CMAs that are essentially to be governed by water users themselves. The process is characterized by extensive information provision regarding the new rights and responsibilities of water users through the future CMAs and by mobilization of ideas and buy-in for CMAs. Most is in the local language. The Local Governments are the key partners for discussion and expected to consult their constituencies and bring their views back to the plenary sessions. On the ground, local staff of DWAF, but also local staff of other government agencies are included in the process and play a complementary role in one-to-one interaction with poor communities for further information provision, problem diagnosis, and mediation in problem solving. The writing of the formal proposal, that is expected to take another year, is gradual and shared among several local 'task forces', supported by voluntary advisors from the areas.

Integrated water management through CMAs is not only crystallizing at basin level, but also at local level. On the ground, DWAF's service delivery is further integrated. Local DWAF staff improves its services, first, by better coordinating DWAF's internal departments such as Water Services, Groundwater, or Water Quality, and, second, promoting cooperative governance with other line departments. Costs and time are saved and goodwill gained by attending local events rather than calling special meetings. As DWAF staff's evolving relationships with communities are long-term, there is no problem of lost momentum that characterized the first approach.

5. DISCUSSION AND CONCLUSIONS

In all three modes of CMA establishment, water users from poor communities discussed for the first time in history about water resources management in their basin, directly with DWAF. People were keenly interested. Although such discussions were still relatively few, if not very few, they brought new needs and challenges to the surface.

In integrated water resources management in poor rural communities, a primary need is water development for livelihoods (Shah et al. 2001). *Developmental* CMAs are required that stimulate poor people's water use, not only for drinking water purposes, but also for productive purposes in farming, livestock, forestry, fisheries, and small-scale industries in order to combat income poverty. Conforming to hydrological reality in rural areas, an integrated approach is needed. Integration will also allow addressing inequities *within* communities between the poor and non-poor and men and women. Addressing intra-community competition for water requires a better understanding of customary water tenure and conflict resolution arrangements over water quantity and quality, which is a field of growing attention within DWAF.

The current formation of new integrated water management institutions offers new opportunities to design cooperative governance and integrated service delivery directed at the poor from the start onwards. Developmental CMAs could effectively stimulate networking and exchange for more productive water use from local to basin level, linked to other line agencies, the Local Governments, and NGOs. These links can be integrated parts of the future CMA proposals and catchment strategies.

A second new issue that emerged from these public consultations regards the competition over water between high-volume water users and poor water users. This may also be the underlying cause of intra-community water scarcity and conflicts. The reported cases underline how deeply disempowered the poor are vis-à-vis high-volume users in this regard. Such conflicts can only be mitigated, and possibly solved, through a skillfully facilitated process of dispute resolution. DWAF, in collaboration with NGOs and community-based organizations, can contribute to such process by information provision, legal literacy campaigns, and enhancing negotiation skills of all parties. The National Water Act and especially the tool of compulsory licensing will provide the necessary legal backing in such conflict resolution. DWAF staff is now being trained for such new tasks. Accumulating experience will generate a growing body of knowledge and skills in pro-poor water conflict resolution.

Third, with regard to the former, well-organized riparian titleholders, it is true that the past processes of establishing CMAs have been disappointing for them. Their hope to continue *de facto* control over water in the new public space offered through CMAs, which was certainly an important reason to endorse the National Water Act, is at least partly vanishing. An effective regulatory role by DWAF and the future CMAs vis-à-vis these high-volume water users in terms of restricted water allocation, demand management, and pollution prevention is crucial to contribute to poverty eradication. Licensing of any new water use by high-volume users, including the possibility to issue licenses on the condition that benefits are better shared with the poor, will remain a government task for many years ahead. In the water pricing strategy, over-use of water may be taxed and mechanisms for cross-subsidization to, for example, poverty programs be designed. While high-volume users may still expand self-governance, DWAF avoids a situation in which the vested powers 'pick the cherries' of the more rewarding functions in water management, leaving the problematic tasks to DWAF.

In short, the past experiences in establishing CMAs made clear that water management is never 'neutral', 'technical', or 'an end in itself'. Neither do neutral water institutions exist, whether they are

Catchment Management Agencies, Catchment Management Committees, Water Users Associations, forums, or Stakeholder Reference Groups. Nor is DWAF a neutral facilitator for institution building, limiting its role to that of a constitutional watchdog to ensure demographic representation. Decentralizing water management is even less handing-over neutral authority from the state to a neutral public.

Instead, decentralizing integrated water management that contributes to poverty eradication requires careful design and implementation of new pro-poor water institutions from local to basin level. DWAF's action is key to the success. One task is leveling the playing field in the public participation processes for these new institutions, by pro-actively reaching out to many more poor communities, providing information and legal literacy in local languages via multiple media, capacity building, ensuring mobility, structuring and enabling effective representation, and last but not least by mediating in conflicts. DWAF is also the key player in reallocating water and redressing inequities and in enforcing water saving and pollution prevention among high-volume users. Lastly, it largely depends upon DWAF, together with other rural development agencies, how fast water will be further developed to contribute to poor people's health, incomes, and decision-making power, in order to realize 'Enough for All Forever'.

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