Global Water Forum

The challenges of water governance in the 21st century

Decentralization of water management in Southern Africa

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Most Southern African countries have enacted or amended their water laws and policies during the last 15 years or so, and restructured their institutional and governance frameworks accordingly.

For instance, South Africa introduced its National Water Act (NWA) in 1998 and its National Water Resources Strategy in 2002. Zambia amended its 1970 Water Act in 1994, whilst Mozambique and Tanzania approved their National Water Policies respectively in 1995 and in 2002, and Namibia opted for its Water Resources Management Act in 2004.

Water basin, Botswana

Integrated water resource management (IWRM) inspired new Southern African water policies. As one of the four so-called Dublin principles representing the pillars of IWRM, stakeholder participation calls for river basin management at the lowest appropriated level. This refers to the idea of decentralization of water policy implementation. Several authors indicate that effective decentralization requires the devolution of authority and responsibility from the political center, as well as acceptance of that authority and responsibility by local entities in the basin. In other terms, following the subsidiary principle, the design and implementation of water management and allocation policies are

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transferred from the State to local institutions, which often have a better knowledge of the catchment functioning and where representatives of local water stakeholders are allowed to negotiate and jointly decide water management strategies and measures.

While much effort and goodwill was put into decentralization reforms in many basins in the region, results are not uniformly realized. For instance, in South Africa twelve years after the launch of the new NWA, only two catchment management agencies (CMAs) out of the 19 originally foreseen are operational, while many water user associations (WUAs) still struggle to find their place and role in the complex and somehow confused context of water management. In other Southern African countries, the process of decentralization in the water management institutions is even less advanced. It is the case of Mozambique, where in the early 1990s the water sector was highly centralized with all planning, implementation and operational responsibilities and functions in the hands of the National Directorate for Water. Since then, the sector has implemented comprehensive decentralization reforms by progressively setting up regional water administration entities (ARAs). But the only ARA currently fully operational is ARA-Sul, which is responsible for the southern part of the country. The relatively slow development of the Southern African river basins agencies exemplifies the difficulty of implementing decentralization in practice.

Among the main difficulties scholars and practitioners identify in Southern Africa water decentralization processes, a lack of knowledge and information among the relevant stakeholders - including water institutions' staff - and the lack of negotiation and decision-making tools seem to call for particularly urgent attention. The existence of tools and processes for participatory decision-making at the local and intermediate levels are also seen as important factors for successful water governance decentralization.

In order to address the need for innovative methods for local stakeholders' participation in water management, within a project supported by the Water Research Commission of South Africa, a participatory process called Companion Modelling (ComMod) was implemented in the Kat River valley (Eastern Cape province), where the local WUA was busy drafting its catchment plan. A catchment plan is a document that, once approved by the National Department of Water Affairs, allows the WUA implementing autonomously water allocation strategies on its catchment.

River gorge, South Africa

ComMod is a scientific posture based on the use of simulation models and role-playing games (RPG) to assist participatory management of natural resources. Two main features characterize this approach. The first is to take into consideration, from the beginning of the modelling process, the stakeholders' view of the studied problem. The second is to validate model hypotheses through the experience of the stakeholders. ComMod consists of an iterative process of comprehension, confrontation and analysis that involves local users, institutions and researchers. This iteration is also aimed at validating or refuting the tools, such as models and role-playing games, which will be then adopted by stakeholders for local negotiation.

Based on ComMod, the construction of a model called KatAware took place. Several versions of the model and a related RPG

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- ANU Water Initiative. Developing a holistic approach to water for sustainable development.
- Centre for Water Economics, Environment and Policy. Australian National University, Canberra.
- Crawford School of Economics and Governance. Australian National University, Canberra.

were developed with the local WUA. The ComMod process in the Kat valley lasted three years and was instrumental for the successful negotiations within the local WUA conducting to the production of the catchment plan.

A number of shortcomings, however, were identified by an ex-post external evaluation of the exercise. The ComMod process was considered too long by most of the local stakeholders, and the KatAware model was perceived as a prescriptive and normative tool rather than an interface to facilitate discussions. The related RPG only partially redressed this perception.

Sorghum seeds germinated for malting © CIRAD

In order to address these shortcomings, another project was launched in two different South African catchments (Sabie and Sand in the Mpumalanga province) with the objective to develop a generic platform for negotiation, called Wat-A-Game (WAG), which is aimed at facilitating and speeding-up the construction of new applications adapted to specific realities. WAG, which is still at a prototype stage, was successfully tested in real negotiation contexts and in educational arenas, proving its versatility and potential as an interface for information exchange and negotiation support around water issues at various institutional and geographical scales.

As the above examples indicate, applied research is currently underway in Southern Africa in new methods and tools that facilitate dialogue and improve decision-making skills of local stakeholders for effective, equitable and sustainable water management. This research is designed and implemented in very close collaboration with all parties involved in water policy decentralization, in order to prevent the risk of failure due to the lack of commitment by some actors in the participatory process and, consequently, the reduced social legitimacy of the developed methods.

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