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Deutsches Institut für Entwicklungspolitik

German Development Institute

NEXUS BRIEF No. 5/2016

Coordinating Planning in the Agricultural and Water Sectors: Zambia

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The nexus issue

Zambia's agricultural sector has so far fallen short of its development potential. Just 10 percent or so of water and land resources are used for irrigated farming purposes, meaning that local and regional markets are not being served nor income and employment opportunities exploited. Against this backdrop, the Zambian Government set up the *Farming Block Development Programme* (FBDP) with the ambitious goal of driving agricultural commercialisation on over one million hectares of land, a considerable proportion of which will be irrigated. The FBDP builds primarily on public-private investment partnerships. At the same time, smaller irrigated areas tailored to smallholdings are being introduced with funding from the World Bank, the African Development Bank and other development partners.

Despite the whole country still having water potential, conflicts are already arising within individual river basins between the main water users. Take, for instance, the conflict along the Kafue River between state electricity company ZESCO, major agricultural firm *Zambia Sugar,* the associated contract farmers from *Kaleya Smallholders Co Ltd,* many other sugar cane producers in the Mazabuka District and the water supplier for the capital Lusaka, with a population of about 2.45 million inhabitants. This competition over use is giving rise to supply crises in the water sector and in food and energy production.

Research goals

The planned irrigation projects will increase water consumption by the largest user group (farmers). Consequently, the case study examines the procedures and instruments that could be used on a preventative basis to minimise water-related risks and conflicts, and looks at how inter-sectoral coordination should be improved.

Findings

There are two stages to the decision-making process involved in devising and implementing the irrigation strategy. Different actors decide on goals and instruments in each of these stages (Fig. 1). The focus in this context is on sectoral goals.

First decision-making level: irrigation and water sector strategy

The Zambian Ministry of Agriculture's *Irrigation Policy and Strategy* (2004) formulates flexible goals which are not as yet based on any strict feasibility considerations. However, the strategy makes explicit reference to the *National Water Resources Master Plan* of 1995; and the Water Resources Management Authority (WARMA) and the Zambia Environmental Management Agency (ZEMA) are involved on a binding basis in the current revision process by means of a consultative group.

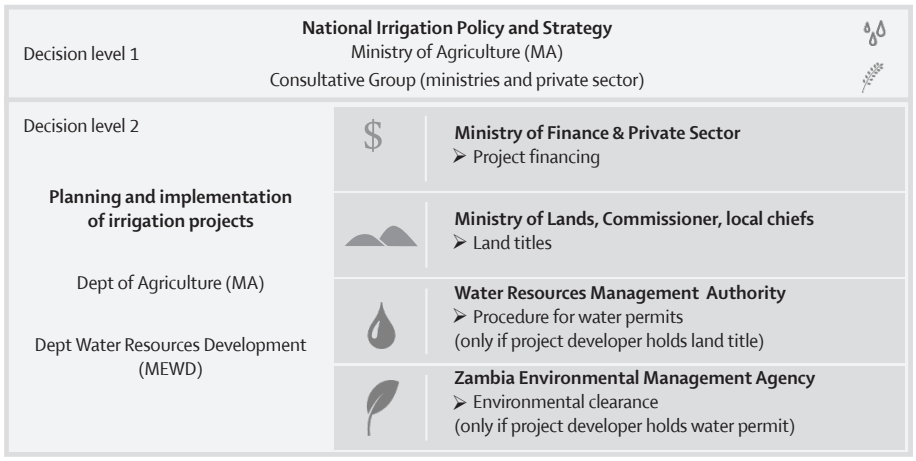
A strategic environmental assessment (SEA) would be beneficial to the implementation strategy, not least in terms of reviewing the suitability of locations and, where relevant, identifying alternatives. But there are currently no workable SEA guidelines. Such guidelines would need to be drafted by ZEMA and approved by parliament.

Second decision-making level: planning and realisation of concrete projects

The central management instrument at this level is the approval process for commercial agricultural water users, which is decided upon by the board of the Water Resources Management Authority (WARMA) (in which all relevant ministries and the private sector are represented). Ideally, water

Future risks to water supply, food and energy production can be averted by strengthening existing institutions and optimising administrative procedures.

Figure 1: Implementation of the National Irrigation Strategy: Decision-making levels and actors



Source: Author

use permits for new irrigation projects should be based on water management and allocation plans for specific river basins which flesh out the National Water Resources Management Strategy. However, a lack of governance and administrative structures has delayed the creation of such plans. Information deficits with regard to existing water rights and actual water volumes used also have a detrimental impact on the situation.

WARMA only addresses and decides upon water use permits if the project developer possesses a land title identifying it as eligible to use water. Responsibility for this process (land title) rests with the Ministry of Lands and requires the consent of local authorities, that is chiefs who manage the land on a trustee basis under the principles of customary land tenure.

The final hurdle for irrigation projects is to review their environmental and social compatibility. In turn, the EIA process may begin even when project developers do not possess a water use permit yet.

Both procedures (land titles and EIAs) are closely interwoven with water use permits, though they follow their own procedural rules and have their own pitfalls, some of which are due primarily to decentralised capacity bottlenecks within the environmental authorities with a negative impact on the monitoring of environmental management plans. At the same time, there is a need to ensure stricter compliance with legal provisions for the other procedure (land title).

The new water act provides for the establishment of a flexible allocation system. Whether or not this will develop in the long term into an effective management instrument depends primarily on whether the national water authority (which is still being established) is able to carry out its mandate and whether the units planned at river basin level are set up and become functional. This can only be achieved with adequate resources for WARMA (government grants, revenue from water charges, specialist staff).

Furthermore, there is a need to decide at policy level on who is responsible for building the water infrastructure. This decision should be taken in a way that better accords with the new water act.

Recommendations

It is necessary to continue and accelerate efforts to promote the creation of water management plans and the establishment of a properly functioning allocation system (including for groundwater).

The process for recording current water use as part of the approval procedure should be improved, not least by strengthening the involvement of the affected parties.

At a pragmatic level, the actors should focus on improving existing instruments (including the EIA) and supporting capacity building at the Environmental Management Agency (monitoring).

Support should be provided to ZEMA for developing SEA guidelines for the irrigation sector which can then become legally binding.

The project "Implementing the water-energy-food nexus: incentive structures and policy instruments" is being funded by the German Federal Ministry for Economic Cooperation and Development (BMZ). www.die-gdi.de/en/nexus/

Zambia's water governance and administrative structures are still under development and so are limited in their regulative ability.

It is necessary to take a pragmatic approach to building on and improving existing procedures and instruments.

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