A briefing paper for Government of the United Republic of Tanzania, Planning Commission

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Water policy, catchment management and poverty in Tanzania.

Key policy recommendations:

- River basin management should be based on integrated analysis of land use and water resources.
- Policy instruments are required in order to regulate the impact of land use decisions on water resource availability.
- Concepts of human needs and environmental reserves should be extended beyond narrowly defined water policy to embrace land use issues within the river basin.

Target institutions:

Government of the United Republic of Tanzania, Planning Commission

Ministries of:
- Agriculture and Food Security
- Lands and Human Settlements
- Natural Resources and Tourism
- Water and Livestock Development

Rufiji River Basin Authority

Problem statement:

Agriculture is the foundation of the Tanzanian economy – accounting for 50% of national income and 80% of employment. Vision 2025 calls for doubling the growth rate compared with what was achieved over the last 20 years, while simultaneously reversing current loss and degradation of environmental resources. Sectoral policies and plans (eg. agriculture, forestry, water) attempt to respond to this challenge, but frequently fail to deliver an integrated approach. The creation of river basin authorities allows for integrated management within a natural environmental unit, but requires appropriate policy instruments and methods of analysis. A key challenge facing policy makers, is how to deal with trade-offs between economic growth, social justice and environmental sustainability. So-called integrated water resources management (IWRM) was developed as a methodology for dealing with the first and the last. It is essentially a top-down approach which works at a level of aggregation that fails to deal with issues of equity and social justice. The sustainable livelihoods (SL) approach, on the other hand, works at the level of the household and reveals much more about the nature of their dependence on access to environmental resources.

Basis of recommendations:

Research in a case study catchment in South Africa aimed to compare and contrast IWRM and SL approaches to land and water management in a water-stressed semi-arid environment. This note attempts to extract some lessons from this experience that are believed to provide useful insights into the problems of river basin management in Tanzania. A comparative study within Mkoji catchment in the Usangu Basin provided a basis for judging transferability of the findings from South Africa.

Integrated land and water management:

The new draft water policy for Tanzania includes key elements that are strongly influenced by measures previously adopted within the South African National Water Act (NWA) of 1998. The NWA introduced the concept of Stream Flow Reduction Activities (SFRA's) as a means of accounting for the impact of land use on water resources, however this important measure is not present in the draft water policy for Tanzania.

The concept is applicable in Tanzania and is important because it helps to clarify the linkage between land use and catchment water balance. Conventionally, river basin management is concerned only with allocating streamflow and groundwater. However, an integrated approach to land and water management recognises that different land uses result in different evaporative losses and therefore impact differentially on resource availability.

Within the terms of the NWA only commercial forestry was designated as a SFRA. This is significant because it reflects the reality of the hydrological influence of forests in a semi-arid environment. However, it is also important to note that the definition is broader and provision is made within the NWA for other land uses to be declared as SFRA's. In principle all land uses can be assessed for their impact on water resources.

Regulatory framework:

It is recommended that provision be made within the regulatory framework for water resources to allow for integrated management of land and water within a river basin.

Policy instruments are required such that control can be exercised also over land use in recognition of differential hydrological impact.

Capacity for implementation of this approach is currently limited and there is an urgent need to develop necessary management tools.

Knowledge gaps:

River basin management must deal with trade-offs between economic, social and environmental impacts of planning and resource allocation decisions. Current provision within the national water policy recognizes the needs of the environment only in terms of protected stream flows. An integrated approach to land and water management requires assessment of environmental services related to land use as well as streamflow. Current capacity to evaluate these environmental services is inadequate. Knowledge of the baseline condition represented by the "natural" condition of the river basin is lacking in Tanzania.

Current provision within the national water policy assigns first priority to "water for basic human needs". This concept of the human reserve should also be extended beyond a narrow application to streamflow and/or groundwater. A high level of dependence on the natural resource base is a characteristic of rural poverty and this is inextricably linked to the issue of land use. Current capacity to evaluate livelihood impacts of planning and resource allocation decisions is inadequate. Compensatory mechanisms may be required where upstream land and water uses are constrained by wider public interest.

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