A DECISION-AID FOR RESOLVING ENVIRONMENT-AGRICULTURE WATER CONFLICTS IN THE GREAT RUAHA RIVER BASIN, TANZANIA

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Abstract.
The Great Ruaha River Basin is one of Tanzania's most important river basins. The basin includes one of the major rice producing areas in Tanzania; it embraces the Usangu plains and wetland; the river serves the Ruaha National Park and supplies water to two national hydroelectric power stations (Mtera and Kidatu). The basin is characterized by increasing competition over water resources and conflicts among users. Managers in the area face the challenge of devising effective measures to ensure efficient and equitable allocation of water resources. The conventional ways of allocating water resources in the basin have proved to be inefficient largely due to lack of integrated and strategic approaches to natural resource management. In addition, water allocation decisions have been reached without having a comprehensive understanding of the river basin characteristics and the inter-linkages between the different components, and are undermined by a lack of supportive tools for decision makers. This paper discusses the current water management framework in the Great Ruaha River Basin, the need for having a river basin Decision-Aid (DA), and a description of the DA, which is currently being developed by the RIPARWIN project (Raising Irrigation Productivity And Releasing Water for Intersectoral Needs). The DA is designed with the involvement of key stakeholders in the basin and will help assessing, among other things, the hydrological and socio-economic impacts of different allocation decisions.

Key words: Decision-Aid, Great Ruaha River Basin, Integrated water management, Water allocation, Water productivity