

Tanzania

Overview

Updates

Solutions

Documents

Irrigation holds the key to stabilizing agricultural production in Tanzania to improve food security, increase farmers' productivity and incomes and to produce higher value crops such as vegetables and flowers.

The agriculture sector continues to drive economic growth in the country, contributing 45% of the country's GDP and about 30% of its export earnings, while employing over 80% of the nation's workforce. Annually some 5.1 million hectares are cultivated, of which 85% are under food crops.

The major constraint facing the agriculture sector is falling labor and land productivity because of inadequate technologies and dependence on rainfall which is unreliable and irregular. Both crops and livestock are adversely affected by periodic droughts.

In 2002 there were 1,189 irrigation schemes covering 192,000 ha across the country yet currently less than 10% of the high-medium irrigation potential land is irrigated. Tanzania aims to increase the irrigated area to 7 million ha by 2015 (Figure 1) and raise rice yields from 2 tons/ha to 8 tons/ha.

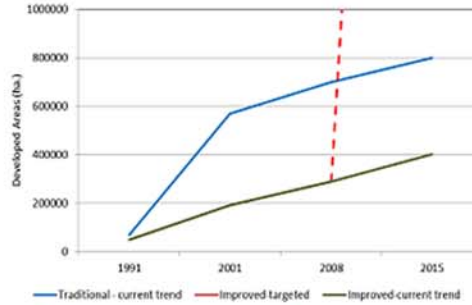


Figure 1: Irrigation coverage gap in Tanzania

Project Countries



Burkina Faso



Ethiopia



Ghana



India



India



Tanzania



Zambia



Figure 2: Livelihood context



Figure 3: Where to prioritize AWM for smallholders

MAPPING THE LIVELIHOOD CONTEXT

Different contexts create different needs and require alternative types of AWM and investments. Livelihood maps can be used to identify where people will benefit most from investment in AWM.

The livelihood context map (Figure 2) delineates areas where rural people share relatively homogenous living conditions on the basis of a combination of bio-physical and socio-economic factors. This context is then used to determine where to prioritize AWM for smallholders (Figure 3) based on water availability, number of smallholders and rural poor, and dependence on water use for livelihoods.

SOCIAL AND ENVIRONMENTAL CONSIDERATIONS

Development of AWM interventions may have an unforeseen impact on the environment and on livelihoods. To examine these issues, a participatory AWM assessment was undertaken in the Mkindo Watershed, Wami River Basin to understand the current socio-economic and biophysical landscape and possible impact under various AWM scenarios.

Impact of AWM Solutions

Based on the assessment, most AWM solutions were found to have a positive social impact but may increase inequity in distribution of benefits. All AWM interventions taken to scale will have some environmental impact. For example, the Mkindo watershed is already affected by water quality concerns from agricultural intensification. Despite high average rainfall, periodic local water scarcity reduces people's livelihood and income opportunities.

Expanding irrigation schemes and adding livestock watering points will benefit many people. Conflict can be avoided through greater involvement of farmers and livestock keepers in the planning of specific AWM interventions, and by strengthening watershed management.

Focusing on high-tech interventions could by-pass the majority of farmers who depend on rain fed agriculture and livestock production. AWM interventions should also include low cost, appropriate technologies and be combined with training on agricultural practices, which have been shown to improve yield without the need for farmers to make significant financial investment.

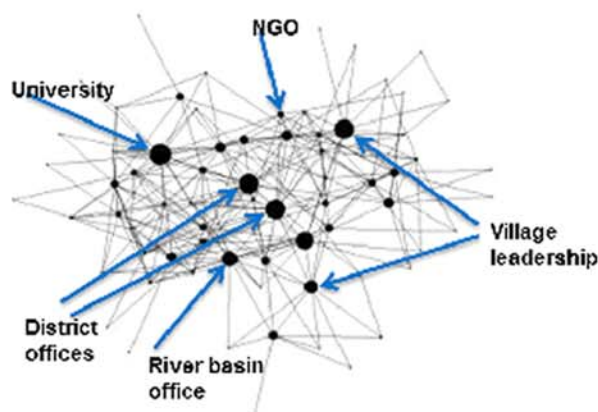


Figure 7. Social network of Mkindo Basin

Managing Trade-offs

Local informal actors play an important role in AWM developments but are not connected nor officially recognized. The Water User Associations (WUAs) being established by Wami River Basin could bring these actors into the formal transparent structure. Improving relations between village and national institutions will increase the ability for negotiation, improved planning, and managing trade-offs.

Research carried out under the AgWater Solutions project suggests several avenues for investing in AWM for improved agricultural productivity and livelihoods, including investments in infrastructure as well as training, credit and marketing.

A mix of AWM solutions, coupled with strengthened social and institutional networks, can enhance the returns from investing in AWM.



Better water management enables farmers to improve agricultural production and livelihoods.



A motor pump is just one of the options to help farmers improve irrigation.

Project Country Contacts

Technologies	Name	Email Address
Country Coordinator and project contact point	Dr. Hilmy Sally, International Water Management Institute (IWMI)	
National Focal Point	Mr. Oumar Seydina Traore, Director, Direction des Aménagements et du Développement de l'Irrigation (DADI), Ministry of Agriculture	
National Dialogue Facilitator	Dr. Youssouf Dembele	
Project Ambassador for West Africa	Dr. M. Amadou Allahoury Diallo, independent consultant, Niger	

If you are working on similar issues and would like to discuss them with the project team please contact the project secretariat at: awmsolutions@cgiar.org.