



Published on *The WorldFish Center* (<http://www.worldfishcenter.org>)

[Home](#) > Sustainable Water Usage in the Chinyanja Triangle

Sustainable Water Usage in the Chinyanja Triangle

KEY FACTS	Project	Donor	Partners	Project leader Daniel Jamu
	IAA, Water and Climate Change	<u>German Federal Ministry for Economic Cooperation and Development (BMZ)</u>	<u>Chancellor College of Malawi</u> <u>Bunda College</u> <u>University of Malawi</u> <u>International Water Management Institute</u> Malawi Department of Irrigation <u>Malawi Department of Fisheries</u> <u>Universitaet Osnabruck</u>	
	Location <u>Malawi</u>			
	Start 2010			
	End 2013			



Expanding sustainable aquaculture, Malawi

In sub-Saharan Africa, the integration of pond aquaculture into rainfall-based agriculture systems, using practices such as Integrated Agriculture Aquaculture (IAA), has been largely successful. In some cases, fishponds have doubled household income, and increased household food production by 150%. Farms using IAA are proving to be 8% more productive during droughts, with women becoming more actively involved. Adoption of the approach has been growing at 25% per annum in Malawi since 2000, and is fast expanding. This is especially noted in the Chinyanja Triangle in the lower Zambezi River Basin, an area that covers southern and central Malawi, central Mozambique and eastern Zambia.

The movement of smallholder farmers away from rain-fed systems to irrigation-supported

systems, or small scale irrigation systems, is creating opportunities for promoting the integration of aquaculture into diversified food production systems. However, it is also increasing competition for water use. The proliferation of small scale irrigation systems, coupled with ineffective governance and management of water allocation for multi-sector use has led to a shortage of water for irrigation, which is worsening the situation in the drought-prone Chinyanja Triangle. The sustainability of these systems is also threatened by the deforestation and soil erosion of their water catchments. The inequitable use of limited water resources has led to increasing social tensions in local communities, which if left unchecked will undermine the farm-level productivity gains that are crucial for alleviating the prevalent and persisting food insecurity and poverty in the region.

IAA, Water and Climate Change

Attention now needs to shift from improving aquaculture productivity to issues of water use and its governance beyond the farm level. The WorldFish 'IAA, Water and Climate Change' project, funded by the German Federal Ministry for Economic Cooperation and Development (BMZ), is focusing on this issue. The project is targeting the Chinyanja Triangle, where 66% of the population lives below the poverty line, where over 80% are engaged in subsistence agriculture and the prevalence of HIV/AIDS is 25-35%. These critical issues have a direct bearing on food security, hunger alleviation, and child and maternal health.

The development of innovative, decentralized, adaptive management strategies involving the key water users is seen as a solution.

With the assistance of tools created in earlier projects by both WorldFish (decision support tools for assessing the potential and limitations of aquaculture), and the **International Water Management Institute** (models for managing multiple-use water schemes), the project hopes to make progress in the following areas:

- the development of diagnostic tools for assessing the availability of water resources;
- improved IADFS designs for matching water use with the location-specific availability of water;
- projected water scarcity/flood maps, and
- water governance policy recommendations.

Enhanced livelihoods and food security

Project researchers will develop a framework for the integration of aquaculture and small scale

irrigation system into diversified and sustainable food production schemes. They also hope to improve the capacity of stakeholders to adapt to the droughts and floods that are expected to be increasingly frequent in the face of climate change. In so doing, they will contribute to the increased food security and wellbeing of disadvantaged sub-Saharan rural households.

Photo Credits – John E. Randall

Tags

[Africa](#)

[Aquaculture](#)

[Climate change](#)

[Food security](#)

[Livelihoods](#)

[Management](#)

[Small-Scale Fisheries](#)

Source URL (retrieved on 2011-10-10 12:42): <http://www.worldfishcenter.org/our-research/ongoing-projects/chinyanja-triangle>