



Zentrum für Entwicklungsforschung  
Center for Development Research  
University of Bonn

August 2011

# ZEF

## Policy Brief No. 9

Pro-active farmers and supportive municipalities  
in Ethiopian dam projects.

by Irit Eguavoen



# MAIN FINDINGS

1 If farmers are informed early enough about dam-induced relocation, many of them become pro-active in organizing temporary land-exchange arrangement with their kin and urban dwellers until final land reallocation and irrigation.

2 Delay in the legalization of land exchange arrangements hinders settling down after relocation, especially in town.

3 Re-located farmers maintain former social support networks rather than joining or building new networks.

4 The period between loss of land and farming irrigable plots is much longer than projected. The compensation payments are not sufficient to fully bridge the extended non-farm period.

5 Main challenges for irrigation are long distances, plot leveling, supply with improved seeds and fertilizers, the high number of Christian holidays as well as farmers' lack of knowledge in irrigation and crop marketing.

## Risk in dam projects

Impoverishment in development projects through displacement may be triggered by landlessness, homelessness, joblessness, social marginalization, loss of assets and social disarticulation and materialize in food insecurity and increased mortality rates. Livelihood assets get lost and must be rebuilt by the displaced households who should be supported by authorities and adequate compensation schemes.

How such risks for impoverishment can be reduced will be discussed on the example of on-going dam building projects in the Blue Nile River basin. In all up-coming dam projects, a few hundred or thousand farming households will need to relocate their agricultural plots and homestead. Land tenure and livelihood will drastically change and compensation payments will be organized. Small towns in the project regions need to prepare for an influx of migrants from rural areas.

## The case study

The Koga Irrigation Project in Amhara Regional State, Ethiopia, serves as a pilot project in the country. With its planned 7,000 ha of irrigation, it was planned to be the country's first farmers self-administered large dam project. The dam project will replace rainfed agriculture with irrigation agriculture. This means there will be a harvest twice a year instead of one annual harvest, implying a higher work load for the peasants. The final construction of irrigation infrastructure is still on-going. Smallholders will cultivate irrigable plots of 0.5 ha per household.

## Loss of assets and compensation

The entire land within the irrigation scheme was re-allocated to ensure access to plots for farmers who had to give up their houses and land because of the dam project. Residents of the command area had to give all land above 0.5 ha into the pool for land re-allocation. Mean plot sizes were reduced and former communal grazing lands were inundated.

Table 1 The Koga irrigation project – technical data

<b>Location</b>	Amhara Region, Gojam Zone
<b>Construction period</b>	2002-present
<b>Inauguration (Koga dam)</b>	2008
<b>Construction cost</b>	400 Mio ETB
<b>Donor</b>	African Development Fund
<b>Proposed water storage volume</b>	81.3 Mio m <sup>3</sup>
<b>Reservoir surface</b>	2,000 ha
<b>Command area</b>	7,000 ha
<b>Population in command area (2007)</b>	57,000
<b>Management system</b>	Experts and farmers

Because of the delay in land re-distribution and the construction of irrigation canals, many of the relocated households and households who had lost land could not cultivate for several farming seasons and had to sell their cattle, since no pasture was available any longer. Because the extended number of off-farm season, many of the 500 relocated households have received insufficient compensation payments to secure their livelihoods in the meantime. These delays also affected the other farmers who had lost land in the command area and waited for new allocations.

Off farm income opportunities were short supply. Results of the stakeholder analysis in 2008 by Gebre, Getachew, and McCartney were confirmed by our ethnographic study. Running out of compensation payments, inter alia their consumption had been predicted in 2008, whilst in 2010 a number of households faced exactly this situation of not being able to farm again and having no money left to buy food items.



The loss of communal grazing land is a problem.

Problems arose with the legalization of urban residential buildings in Merawi. As the sale of land is prohibited in Ethiopia, farmers who relocated to Merawie were dependent on illegal purchases to build their houses. Their illegal houses built from compensation money were demolished by local authorities. What the stakeholder study had called “a sharp conflict of interest” between relocated households and their host communities could still be observed. At the beginning, the urban population resented the relocated households in Merawie, envying them for the compensation payments they had received and because they themselves had been forced to give away their farm land in the irrigation area to other farmers.



But due to the delay in project implementation, members of the host communities realised that the relocation often had a negative impact on the livelihoods of the relocated households and hostility towards relocated households reduced.

## Social changes

The settlers' income strategies and consumer behavior changed but their social support networks remained rather stable. Though some social ties with solidary towns' people were created to ensure basic access to water and electricity, support networks with neighbors from the old villages, rural Orthodox church communities and religious associations were maintained despite the distance. Social integration in the city of Merawi is particularly successful in those cases where newcomers try to solve their problems together with city dwellers, such as when organizing security in residential areas.

Our research shows that besides the loss of land and property, and besides the delay and irregularities in compensation payments, the project was accompanied by processes of social disarticulation. As a major cause of this disarticulation, the studies identified the change from a rural to an urban environment and the knock-on consequences for social support networks, the change from subsistence to market-dependent livelihood and changed gender relations within urbanized households. Also HIV in town became an issue of concern. Many of the relocated households had to start from scratch, even though some could build on existing social networks to some extent to ensure temporal access to farmland.

Socio-economic integration of households who have moved to town will take some more years to come to full fruition. The economic and social-political positions of the relocated households will probably improve once they finally receive and can practically access their irrigable land plots, especially because there is no language or cultural barrier to hinder social-economic integration.

## Outlook

If the high expectations associated with the Koga Irrigation Project materialise in terms of household earnings through irrigation, from which about 14,000 households may benefit according to plan, an increase in rural-urban migration to Merawi can be assumed. About 98 per cent of the interviewees would "build a house in the city" in such a case. Farmers communicated the prospect that their children might leave the farms behind and strive for other jobs. They told about their intent to send their children to live in the town if this course of action would result in a better education.



Farmers tell about their good experience with irrigation.

When relating the findings to the Impoverishment Risk and Reconstruction Model, seven of eight risks were clearly identified in Koga.

But it is also important to underline that the majority of relocated households succeeded in settling down in rural areas, thus not facing the specific urban difficulties.



Professionals manage the infrastructure.

Koga project staff as well as the municipality undertook reconstruction activities to reverse the impoverishment risk for the relocated households, even though they focused on the reconstruction of material livelihood assets, such as land and houses and tried to deal with income loss through mainly compensations. Merawie however, seem to have underestimated the extent of rural-urban migration and the need for urban land, probably due to a knowledge gap about household numbers to be expected.

The Koga Project Management Unit works very professionally and reflects often on its role and activities. Despite this, the payment of compensation and allocation of land could have been better organised and the negative consequences for livelihoods reduced.

But it seems that reconstructive activities mainly suffered from the long delay with regard to the finalization of the canal system and the calculation of compensation for a shorter off-farm period.

The reconstruction of access to commons (especially grazing land) was not considered in the project or by authorities – the irrigation scheme did not provide space for commons.

Another striking finding is the proactive activities that were initiated by the affected households as response to impoverishment risk if they were informed early enough about the project, especially about the need to organize and to legalize land exchange arrangements. Proactive households found it easier to settle down in town or with rural relatives, as well as to ensure the temporary access to farm land to buffer the times until land reallocation and irrigation.



## Policy recommendations for future dam projects

- 1 Close the information gap about expected number households who need to relocate, as well as about the number of off-farm seasons that really need to be bridged by farming households in the command area.
- 2 Inform local administrative units and municipalities in the command area about these numbers to allow them to prepare for the challenge.
- 3 Support pro-active activities of farmers by informing them as early as possible about relocation.
- 4 Provide farmers with administrative support, especially in the legalization of individual land exchange arrangements.
- 5 Invest more in the creation of off-farm income opportunities in the command area and affected small towns.
- 6 Improve agricultural extension services and their funding, especially the supply with agricultural inputs and training for farmers starting with irrigation.

### Further reading

Ayalew Gebre, Getachew Derese and Matthew McCartney 2008. Stakeholder Analysis of the Koga Irrigation and Watershed Management Project. A study report submitted to the IWMI. Addis Ababa.

Cernea, Michael M. 2005. Concept and method. Applying the IRR model in Africa to resettlement and poverty, in: Itaru Ohta and Yntiso D. Gebre (eds.) Displacement risks in Africa. Refugees, resettlers and their host population. Kyoto: Kyoto UP, pp. 195-258.

Eguavoen, Irit and Weyni Tesfai 2011. Rebuilding livelihoods after dam-induced relocation in Koga, Blue Nile basin, Ethiopia. ZEF Working Paper 83. Bonn.

Free download: <http://www.zef.de/workingpapers.html>

More project results can be found at:  
<http://africastorage-cc.iwmi.org/home.aspx>



## About the author

Dr. Irit Eguavoen coordinated the social-political studies of the project "Re-thinking Water Storage for Climate Change Adaptation in Sub-Sahara Africa".

## Acknowledgement

The research project was conducted under the leadership of the IWMI office in Addis Ababa and funded by the the German Ministry for Economic Cooperation and Development.

The Center for Development Research (ZEF) is an international and interdisciplinary research institute of the Rheinische Friedrich-Wilhelms-University, Bonn. The Center came into operation towards the end of 1997.

The work of the Center is supported by an external International Advisory Board, currently chaired by Professor Hans van Ginkel, former Rector of the United Nations University in Tokyo, Japan. The Board monitors and evaluates ZEF's progress.

## ZEF Policy Brief

For the purpose of applied research the ZEF Policy Briefs mainly address decision makers and practitioners of development cooperation with pointed comments on current and emerging topics. The ZEF Policy Briefs are published sporadically. They are complementary to ZEF's more extensive Discussion Papers that intend to stimulate discussion among researchers and practitioners.





# IMPRINT

Published by:

Zentrum für Entwicklungsforschung (ZEF)  
Center for Development Research  
Walter-Flex-Strasse 3  
D - 53113 Bonn  
Germany  
Phone: +49-228-73-1846  
Fax: +49-228-73-1889  
E-Mail: [zef@uni-bonn.de](mailto:zef@uni-bonn.de)  
[www.zef.de](http://www.zef.de)

Contact:

Dr. Irit Eguavoen ([eguavoen@uni-bonn.de](mailto:eguavoen@uni-bonn.de))

Editor:

Verena Bittelbrunn

Layout:

Katharina Moraht

Copyright © 2011 Center for Development Research. All rights reserved. Sections of this document may be reproduced without the express permission of, but with acknowledgement to, the Center for Development Research.