

## IMPACT STORIES

# PPIAF Support to Private Sector Participation in the Irrigation Sector in Ethiopia



PPIAF support to two activities in Ethiopia has led to private sector participation in the irrigation sector, which is aimed at improving availability of water for farmers, and increasing food quality and security for Ethiopian residents. In 2006 PPIAF provided support to the government of Ethiopia to prepare an action plan to develop irrigation public-private partnerships (PPPs) in Megech, Ribb River, and Anger Valley. Following agreement on the appropriate PPP model, PPIAF provided additional support in 2010 to draft bidding documents and the model transaction agreement for the Megech-Seraba Irrigation and Drainage Project in North Gondar. In April 2012 the government of Ethiopia signed a contract to engage French operator BRL Ingénierie to undertake operations and maintenance (O&M) services for the Megech-Seraba project. The \$8 million eight-year enhanced management contract is expected to increase water availability to over 6,000 landholdings over a 4,040 hectare irrigated area.

Agriculture, the backbone of Ethiopia's economy, contributes about 50% of the country's GDP and employs 80% of the population. The majority of Ethiopia's agriculture is rainfed, exposing the country to food insecurity due to erratic rainfall and drought, which have in the past led to famines. Ethiopia has an irrigation potential of about 3.7 million hectares, but it is estimated that only around 5% of the arable land is currently irrigated. Many farming households can only produce enough food for six to nine months of the year, and approximately 8% of the country's 83 million people rely on food aid each year, a figure that grows to as high as 20% during drought years.

In 2004 the Eastern Nile Council of Ministers decided to fast-track an irrigation and drainage project to pilot the involvement of the private sector in the planning, implementation, and operation of irrigation schemes. The project was designed to use public resources to leverage private funding and operation, and reduce risks associated with investments in irrigation by facilitating the introduction of improved agricultural water management technologies to alleviate food shortage and insecurity. In doing so, the project aims to increase food supplies and ensure economic prosperity in rural Ethiopia by allowing farmers to intensify agricultural production systems and thereby increase production and productivity.

The government of Ethiopia sought assistance in 2006 and 2010 from the Public-Private Infrastructure Advisory Facility (PPIAF) to incorporate private sector participation in the irrigation sector in the Megech-Seraba region.

### PPIAF SUPPORT

In 2006 PPIAF funding was requested by the government to prepare an action plan and examine potential PPP models to develop irrigation PPPs in Megech, Ribb River, and Anger Valley.

The PPIAF-funded action plan included: i) policy, institutional, and legal reforms needed for private participation; ii) an estimate of investments necessary to attract private capital; and iii) the identification of measures to reduce project-related risks, including (partial) bank guarantees, insurance, and other measures. The PPIAF activity enhanced understanding of PPP structures at the Ministry of Water and Energy's Irrigation and Drainage Department. By presenting a range of PPP models, the PPIAF-funded

analysis allowed the government and key stakeholders to analyze options and select the most appropriate structure for the project.

Following PPIAF assistance, consensus was achieved on the benefits of an enhanced management contract structure to improve and expand irrigation services by linking O&M to the actual improvement to farmers' livelihoods. The enhanced management contract introduced features not normally present in traditional management contracts, and sought to: i) incorporate oversight/commentary by the operator on the construction program; ii) place responsibility for construction supervision on the operator (any savings would be shared between the construction company and the operator); and iii) remunerate the operator on a key performance indicator basis, but without placing demand risk on the operator.

This innovative approach to the contract was undertaken in order to ensure project sustainability and adapt the level of risk transfer to the capacity of the market while providing sufficient incentives for the private sector to perform efficiently. The scheme included charging farmers an Irrigation Service Fee for the full cost of O&M of the irrigation system—including energy costs—thereby contributing to making the system financially sustainable.

Following on from the first activity, additional PPIAF support was requested in 2010 to fine-tune the PPP arrangements, including drafting the prequalification documents, information memorandum, model bidding documents, and model transaction agreement for the Megech-Seraba irrigation project.

## OUTCOMES

In April 2012 the government of Ethiopia signed a contract to engage French operator BRL Ingénierie to provide O&M services for the Megech-Seraba irrigation project. The eight-year contract, which began in 2012, is the culmination of PPIAF's support to the irrigation sector in Ethiopia. The project is the first PPP transaction established for the construction and management of a new, large-scale irrigation scheme for the benefit of smallholder subsistence farmers.

The management contract reflects the key recommendations of the PPIAF-funded options study. The contract's main objective is to ensure high-quality O&M services and long-term sustainability of the investment, which remains entirely funded by the government, through a World Bank International Development Association (IDA) credit of \$30 million. The management contract is also

funded through the IDA credit and covers all associated costs of the O&M operator for up to \$8 million (including incentives). The operator will be in charge of construction supervision, establishing and building capacity of water users associations, and the O&M of the scheme.

## DONOR COORDINATION

Several donors have provided support to the irrigation and water management sector in Ethiopia. The World Bank has provided both transaction advisory support and loan financing to the Megech-Seraba project, while Gesellschaft für Internationale Zusammenarbeit, IrishAid, Agence Française de Développement, African Development Bank, and European Union have also been active in the development of improved irrigation and water management practices in Ethiopia.

## IMPACTS

This contract is the first of its kind for Ethiopia and one of the first PPPs in irrigation in Sub-Saharan Africa. It is a practical and pragmatic approach to resolving pressing issues of agricultural sustainability for small land holders and farmers. Furthermore, it is anticipated that this enhanced management contract will provide value for money by ensuring: efficient construction supervision; specific coverage and service standards to users; rapid customer response times; adequate training and education to small landholders; and enhanced O&M of the irrigation system. This will help subsistence farmers increase agricultural productivity and develop value chains that will allow them to generate commercial surpluses.

As a result of the project, it is foreseen that 6,000 landholdings over a 4,040 hectare irrigated area will benefit from increased water availability, with potential for increased cropping that will bring associated economic benefits to the region. This PPP model has the potential to be replicated elsewhere in Ethiopia and the region, and a second similar transaction is at bid design stage for the Ribb irrigation project.

### RELATED PPIAF ACTIVITIES IN ETHIOPIA

- 2006: PPPs in Irrigation Infrastructure Development, **\$268,785**
- 2010: PPP Irrigation Model Contracts, **\$74,923**