



Technical Cooperation Project on the Community-Based Smallholder Irrigation (T- COBSI)



Background

According to Zambia National Development Policy (2011-2015), Zambia's vast water resources gives it the potential to expand agricultural production. Zambia possesses between 423,000-523,000 hectares of irrigable land, of which 100,000-150,000 hectares is actually irrigated (Country Development Strategy 2011-2015, USAID). In order to enhance agricultural productivity, National Irrigation Policy (NIP) was launched in 2004 with the aim of developing irrigated area of 700 km² (70,000ha) over a period of five years from 2006 to 2011, of which development, 30,000 ha was targeted for smallholder irrigation. However, due to limited funding, irrigation development has been very slow, despite having potential provinces suited for gravity irrigation system where perennial streams are yet to be fully utilized.



Extension of T-COBSI Technology by AEO (CEO)

Core Activities

1. Conduct group training for Technical Staff from TSB on design, construction, operation, and maintenance (O&M) of smallholder irrigation schemes
2. Train farmers on basic O&M of smallholder irrigation schemes through the on-the-job training (OJT) for Technical Staff from TSB
3. Conduct group training for extension officers on construction, O&M of smallholder irrigation schemes.
4. Conduct group training for extension officers on the on-farm water management
5. Disseminate knowledge and techniques of on-farm water management to the farmers in the target areas
6. Conduct group training for extension officers on techniques of irrigated crop production
7. Disseminate knowledge and techniques of irrigated crop production to the farmers in the target areas.

In order to irrigation development Japan International Cooperation Agency (JICA) has been collaborating with the Government of the Republic of Zambia (GRZ). Most recent of the cooperation emerged when GRZ requested the Government of Japan (GoJ) for technical assistance and implement the "Technical Cooperation Project on Community-based Smallholder Irrigation (T-COBSI).

Overall Goal

Irrigated agricultural production in the target areas is increased.

Project Purpose

To promote and increase irrigated land through the provision of irrigation infrastructure for smallholder farmers in the target areas.



Expected Outputs

1. Through hands-on experience, practical skills in design, construction, operation, and maintenance of simple and permanent irrigation facilities for smallholder irrigation schemes are transferred to Technical Staff from TSB.
2. Through hands-on experience, practical skills in construction, operation, and maintenance of simple and permanent irrigation weirs for smallholder irrigation weirs are transferred to MoA extension officers.
3. Knowledge and skills of farmers in irrigated farming and operation and maintenance of simple and upgraded permanent irrigation schemes are improved.

Item	Target
No. of Extension Officers Trained	150
No. of TSB Officers Trained	35
No. of Sites Developed	14 (JICA portion) 36 (MAL portion)
Area Irrigated by Simple Weir (through extension officers)	630 ha
Area Irrigated by Permanent Weir (through TSB officers)	70ha
No. of Farmer Groups Benefited (both simple and permanent)	700

T-COBSI Target

T-COBSI Approach

From Simple to Permanent

“The irrigation development starts with the ones manageable even by farmers using what is available in the locality, then that is upgraded to more stable structures” — T-COBSI approach. As an entry point, simple structure is first employed, which can be constructed with locally available materials: grasses, twigs, wood, and clay soils, by the farmers themselves in a few hours. Promotion of this process is led primarily by the agricultural extension officers who are deployed in the field of rural communities.

Construction of simple weir is not an end point; where there is enough potential, diversion structure is upgraded to a permanent structure. As the farmers are well accustomed with the O&M of the irrigation facilities as well as irrigated agriculture, more success and sustainability of the permanent schemes can be secured.



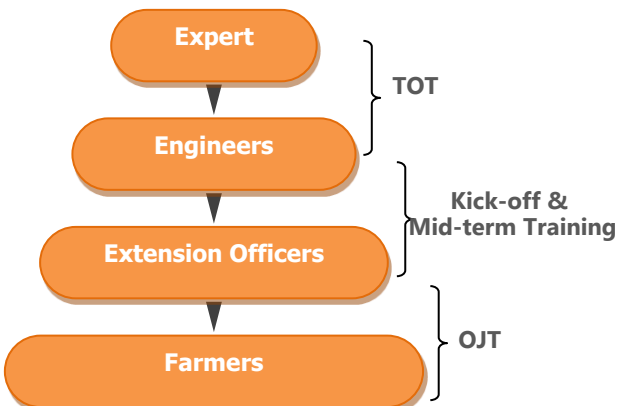
Permanent Weir constructed by Farmers themselves

Simple Weir Construction as an Entry Point

Upgrading from Simple to Permanent

Capacity Building, and Extension

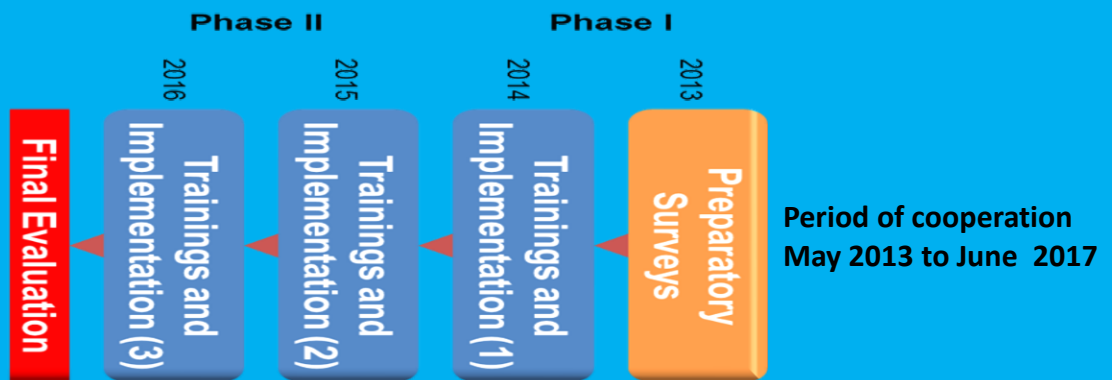
“A cascade-like process of technology transfer: from the project team to extension officers, and from the extension officers to peers and farmers”
A set of technologies on small-scale irrigation development are transferred from the project team to TSB officers and extension officers; and then from trained officers to farmers on the ground. This process is facilitated by a series of trainings: kick-off training, mid-term training, and OJT in the field. OJT is also supervised by the project team.



Cascade-like Technology Extension System

Target areas

The Target area of the project is composed of three provinces: Northern and Luapula provinces where COBSI Study was implemented from 2009 to 2011 and Muchinga province that has been newly created consolidating some districts formerly located in Northern Province. Specifically, the target districts were those where the pilot project of the COBSI Study was conducted: 13 districts at that time, which is now divided into 19 districts.



Implementing Agency

Ministry of Agriculture (MoA)
Counterpart Officials
PACO/PAO (Target Provinces)

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