

## **Training for Permanent Weir Construction and COBSI Research Activities were carried out in New Target Provinces**

Continuing from the last month, training for permanent weir construction has been implemented in the New target provinces. This month, the trainees collected information on suitable sites for permanent weir in each province and selected one candidate site per province, which is in total three sites. In addition, JICA Research Institute and JICA Zambia Office officers visited COBSI sites in Copperbelt and Central province from November 15 to 17, 2021 to set up the impact survey for COBSI approach.

### **Permanent Weir Construction Training**

A series of training on permanent weir development for provincial and district irrigation officers in the New target provinces has been continued from October 2021.

This month, a field survey was conducted for three candidate sites in each province which are selected based on the existing materials. In the field survey, determination of weir positions in consideration of topographical conditions, and field measurement including river flow measurement were carried out.



Field measurement has been implemented in the training. Trainees could acquire more practical skills through practice sessions after the theoretical session (Copperbelt province, Chingola district)

In addition, interviews with the farmer's group were also conducted to collect information on the social condition. From November 15 to 19, based on the survey results, they conducted design, construction planning, construction cost estimation, compared various conditions to determine one permanent weir site in each province, and prepared a design report. Afterward, the orientation on the construction of a permanent weir was carried out in the target area.

A design report that summarizes these results will be prepared within a few months. Construction of the permanent weirs will begin at the end of the rainy season 2022 (approximately February and March), and preparatory work such as collecting stones and sand will begin in April. In the construction work, an OJT for district irrigation staff will be carried out.

### **Site Visit for COBSI Research Activities**

Research for COBSI approach will be carried out by JICA Research Institute to analyze the impacts of COBSI approach to obtain important evidence for its further dissemination and expansion in Zambia and sub-Saharan African countries. E-COBSI project team will support the research, operation, and management at the field level. Representatives of JICA Research Institute in Japan and JICA Zambia Office officers visited COBSI sites that were developed in Copperbelt and Central province from 15th to 17th November 2021.

They visited the model site of some target districts in the provinces where small irrigation is implemented by COBSI approach. They observed small irrigation facilities and agriculture situations. In addition, the questionnaire which will be used as a baseline survey for the target sites was tried as a pre-test. This questionnaire will be revised based on the result of the pre-test.



Researchers from JICA Research Institute, JICA Zambia Office officers and experts from JICA Project Team conducted a site visit to start the survey on COBSI research. (Copperbelt province)

As an upcoming schedule, a site profile of the potential sites in each district, and a list of farmers' groups will be submitted by Jan. 2022. Concurrently, the revised questionnaire will be shared with provincial and district officers to implement the survey.

## Monitoring & Follow-up of district model sites and camp core sites

In November, Farmer Field Day (FFD) has been held at district model sites that were monitored. In FFD, PACO, District-level officers, and District Commissioners attended. In FFD, firstly, all participants visited the entire irrigation site, and then the farmers' group presented the techniques and knowledge acquired from E-COBSI training through the next demonstration field activity.

Followings are the main topic:

- Irrigated farming methods (introduction and practice of gravity irrigation instead of bucket irrigation),
- Knowledge to set the height of ridges appropriately,
- Knowledge of cultivation techniques,
- Selection of crops suitable for soil pH (Copperbelt CPU measured soil pH at each county model site),
- Practice of SHEP approach (Getting market information before starting cultivation),
- Confirm the superiority of group work practice and promote cooperative registration.

Farmers in the model site were also invited to the FDD that is effective for the farmer-to-farmer extension (FtF). Also, suppliers of agricultural materials and some market stakeholders were invited to introduce the latest agricultural materials and to create opportunities for market linkage.



The demonstration plot also plays a role as a base for "Farmer to Farmer dissemination". The photo shows the interview with a female farmer participating in E-COBSI. (Copperbelt province, Mpongwe district)

### Column from the COBSI Promotion Unit (CPU)

## Food and Nutrition

(by Christine Mitti in Northern province)

Northern Province Food and Nutrition Officer (FNO) Elizabeth Kapuka has observed that there is inadequate knowledge on crop nutritional value by most farmers. She said that indigenous crops such as Chibwabwa,

kalembula and others contain high value of nutrition. She emphasized the need to encourage and train farmers in food processing and preservation so that they can add value to their products and avoid wastage.



Scenery of food fair for nutrition diversity. (Northern province)

## Concept of SHEP Approach

(by Chanda Chipwepew in Northern province)

Smallholder Horticulture Empowerment & Promotion (SHEP) Approach is an Extension approach aimed at realizing "Market-Oriented Agriculture". It is an approach developed by JICA and has since succeeded in increasing farmer's income. This approach enables farmers to visit markets to understand not only the price but also required quantities, quality, selling conditions, price fluctuation and other relevant information before they produce the crop. This is the principle of "Starting with the market and ending with the market".



Scenery of crop selection session in MTT, which is an important process of SHEP to foster "Autonomy" of farmers. (Northern Province)

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