REPUBLIC OF ZAMBIA

Ministry of Agriculture (MOA) and Japan International Cooperation Agency (JICA)

Expansion of Community-Based Smallholder Irrigation Development Project



(E-COBSI)

E-COBSI News Letter

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E-COBSI Activities in 2021 have Commenced

Through KOT in April and May, CPU members with Japanese experts shared the necessary knowledge and techniques with the district officers and BEOs/CEOs. Then the trainees have started to implement with the farmers from June. In this month, Japanese experts also prepared further activities to accelerate the impact of COBSI activities, for instance, provision of fuel for operations to each district, inventory of motorbikes. Concurrently, the plan of demonstration plot in each district model site has been collected and checked to enhance the further extension of COBSI activities. In addition, Japanese experts, CPU members and District officers in charge conducted monitoring in district model sites of Copperbelt province and Central province.

Preparation for COBSI activities

In order to implement the E-COBSI activities at the ground level by CPU, District Staff and BEO/CEO, the project provides the fuel for the E-COBSI activities. The project team has so far provided fuel for the planned activities of May, June and July. All officers in charge have a responsibility to use the fuel as per plan and report the activities in the monthly and field visit report.

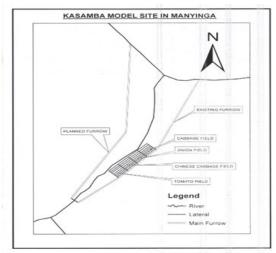
Moreover, the condition of the motorbikes being used by BEO/CEO in each target district has also been checked. CPU members and district offices requested the JICA project team to repair/service the motorbike to carry out the E-COBSI activities because the condition of most motorbikes was old and have any problems and it is one of the problems towards extension activities. All provinces made an inventory of motorbike conditions of each district and camp. The project team will check the inventory and consider how to support towards the repair/service.

Points to fill out in the inventory:

- If each CEO (BEO) has a motorbike or not.
- (If has) If it runs or not
- (If not run) Name and quantity of spare parts

Planning of Demonstration plot at the district model site

To enhance the dissemination of E-COBSI's irrigation agriculture, the project team plans to establish the demonstration site in all district model sites. Each district has been making plot layout with the following contents: the concept of demo plot plan, design map, crops to cultivate, cultivation area, basic information of farmers in the area, planning activities, necessary agricultural input, and the budget. In addition, each district has submitted pictures of the market survey sheet, crop selection sheet, and scenery of the activities.



Design map of demonstration plot in Mafinga district in Northern province. Each district submitted the plan of demonstration plot with a map and budget.

JICA project team will transfer the budget to the districts after checking and finalizing the plan.

Monitoring of district model sites

In the month of May and June, Japanese experts, CPU members, district officers, and BEOs/CEOs conducted monitoring at district model sites in Copperbelt and Central province. The following are the results of the monitoring.

Monitoring for Water Management and O&M



For the purpose of recommended water distribution and stable utilization of irrigation water, it is expected that irrigation groups practice rotation irrigation and follow O&M plan of irrigation facilities. Generally, there was enough irrigation water and not necessary to practice rotation irrigation because the timing of monitoring was beginning of the dry season when water amount in a river is abundant. On the other hand, in many sites, rotation irrigation is practiced at the end of dry season, in September and October particularly, when water amount becomes scarce and temperature is high.

In Copperbelt province, many farmlands are located in marshland, called "Dumbo" where the groundwater level is high. In such sites, many farmers made high ridges and irrigated by scooping from the furrow. Though COBSI has recommended gravity/furrow irrigation and basin irrigation so far, the combination of high ridge and scooping of water can also be added to training materials and recommended in sites where the groundwater level is high.

Since training for permanent weir construction will be conducted in the New target provinces this year, the Japanese experts also assessed the potential for permanent weir by the topographic condition and basic ground foundation condition.



Combination of high ridge and scooping (Kalulushi district in Copperbelt Province)

Monitoring for Cultivation Technics

Since monitoring results in Copperbelt province have been reviewed in the Newsletter in the last issue, the observations in Central province are reported this month. The findings from the monitoring will be reflected to formulate and revise training materials to improve current challenges on the sites.

The first finding is that there are a variety of ways of land preparation to adapt to the



Terraced field is prepared to enhance water retention in sandy soil of which percolation rate is high. (Serenje district in Central Province)

environment. For example, high ridges in marshland, terraced field in sandy areas where percolation rate is high. However, in some areas, land preparation is not appropriate to the environment. For example, high ridge in sandy soil may be inappropriate in terms of water use efficiency of crops and land use efficiency. Another example is establishment of ridges in direction

of steep slope in field of red soil. It may cause erosion and lower the water use efficiency of crops.

Another finding is that in most of the farmlands in Central province, the soil color is red and seems to low organic contain materials. However, the variety and quantity of tree near the sites is abundant. Thus, in addition to residue of previous crops, the fallen leaves would be utilized for organic fertilizer. Considering price spike in agriculture input, it might be better introduce more



Terraced field is prepared to enhance water retention in sandy soil of which percolation rate is high. (Serenje district in Central Province)

information about organic fertilizer which can utilize natural resources efficiently in addition to existing content like compost and "Bokashi".

Monitoring for Nutrition improvement

Here is the summary of the narrative nutrition survey.

- (1) In Copperbelt province, there are many households eating meat and fish twice or three time per week.
- (2) In Central province, consumption of protein is relatively low.
- (3) More than half of the interviewees increased consumption of vegetable after participating E-COBSI. The trend is obvious for household which consume by themselves every day.

The result of the survey would be analyzed, and good practices will be organized. The survey will be conducted once a year continuously together with an annual income survey to confirm the effect of E-COBSI.

Column: Discussion with Nutrition officer in HQ of MoA

The project team discussed with the Nutrition officer in HQ of MoA, Mr. Mulele* about the training material of Mid-term Training (MTT) and coordination with other doners. Here are the records of the discussion.

- 1) Regarding the revision of training material, the team has received comments on the content of materials (e.g. better to put more pictures/reduce the number of slides by combining the content of multiple slides) and the program of MTT last year.
- 2) Scaling Up Nutrition (SUN) is implemented in 42 districts as a principal domestic nutrition program. SUN is implemented by coordinating with multiple ministries. Establishing a fish pond is one of the activities. The team keeps on collecting information of other donors and seeks the possibility of collaboration.

**Mr. Mulele Sibeso: HQ of MoA, Department of Agriculture, Food and Nutrition Section