



**A month for capacity building on permanent weir construction**

Terminal Evaluation Team gave six recommendations to be addressed by the end of the project. One of them is capacity building of engineers on permanent weir construction considering the increasing demand. As it requires engineering expertise such as ground investigation, design, and supervision, engineers in New Target Provinces took permanent weir training. On the other hand, Japanese experts provided technical guidance to engineers and farmers at the three permanent weir sites in New Target Provinces. Please enjoy!

**Six recommendations from the Terminal Evaluation Team**

As last month’s newsletter said, the terminal evaluation team gave recommendations to us, the Zambian side, and the Japanese side in the JCC meeting based on findings during the site visit. The following table shows six recommendations for us to be addressed by the end of the project. The first recommendation, which is the main topic of this newsletter, came from the demand for permanent weirs. For example, many farmers requested to upgrade from simple weirs to permanent weirs during the site visit. Another example is that the government of Zambia plans to construct permanent weirs to be funded by other projects. Thus, the terminal evaluation team expects us to increase the number of engineers who have enough capacity to construct permanent weirs. In the following part of this newsletter, we introduce the actions done in October to achieve the expectation.

**Six recommendations from Terminal Evaluation Team**

No.	Recommendation
1	Further Capacity Building of Irrigation Engineers for Permanent Weir Construction
2	COBSI Promotion for Stakeholders at Final Seminar in January 2024
3	Approval of the three-year Action Plan (2024-2026) for Smallholder Irrigation Development
4	Confirm the achievement of Output 4 in Project Design Matrix by the results of endline survey
5	Discussion with WARMA regarding Water Use Permit Application and Water Use Fees
6	Calculating Benefit and Cost for permanent weirs

**Capacity development of engineers by permanent weir training**

To respond to the 1<sup>st</sup> recommendation, engineers from Central Province, Copperbelt Province, and

Northwestern Province participated in permanent weir training at Masaiti Farm Institute from 17<sup>th</sup> to 20<sup>th</sup> October. Senior Irrigation Engineers in the three provinces, Ms. Cheelo H Mudenda, Mr. Mwenya Sampule, and Mr. Jackson M. Bwalya played an instructor role. They taught ground investigation, construction design, supervision plan, and cost estimation to 16 participating engineers from the three provinces. This training contributes to the 1<sup>st</sup> recommendation from three points of view:

- 1) Capacity development of SIE as master trainers,
- 2) The training is practical because SIE explains lessons learned and countermeasures experienced in permanent weir construction during the project period.
- 3) Capacity of nine new engineers was developed in addition to the trainees in 2021.



Ms. Cheelo H Mudenda, who is SIE in Central province tells her experience on permanent weir construction to the participant engineers. (Masaiti Farm Institute in Copperbelt province)

**Upcoming Training**

After the training, the trained engineers will conduct candidate site selection and site investigation in their own province. Thereafter, they will attend follow-up training at the end of November to learn construction design, supervision plan, and cost estimation for the selected sites.



The picture shows candidate site investigation in Serenje district. Investigated items such as stream water volume, geographic condition, and vegetations are used for designing. (Serenje district in Central province)

### Japanese experts' technical guidance at permanent weir construction sites

Mr. Nobuaki Chiba and Mr. Yoshihiro Sagawa provided technical guidance to farmers and engineers at the three permanent weir construction sites in Mukushi district, Mufulira district and Kasempa district. This also contributed to achieving the 1<sup>st</sup> recommendation by the terminal evaluation team. Here is an example of the guidance. In Mukushi district, the progress of construction stagnated because the farmers were busy with other businesses. Therefore, master trainers from follow-up provinces, Mr. Ackson Mbewe, and the Japanese experts guided to divide the farmers' group into five groups so that everyone works only one day during the weekday while as a group, construction is moved forward every day. The farmers followed this guidance and now construction is on track.



Construction of the right canal is almost completed. The remaining part is abutment of the left canal that the white arrow shows. The completion day will be around the beginning of December. (Mukushi district in Central province)

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In Mufulira district, farmers mainly collected stones and sands this month while they constructed canals and abutments. Collected materials will be brought to the site in November. The completion day will be the beginning of December.



The remaining part is the right canal especially abutment and canal lining while the left canal is almost completed. The left down picture shows that farmers are collecting stones. (Mufulira district in Copperbelt province)

In Kasempa district, the left canal is completed. Then, farmers start irrigation farming using water from the left canal. The remaining parts are abutment, slope protection, and lining of the right canal. All the construction will be completed soon.



The picture shows that farmers are constructing slope protection of the right canal. They will conduct 20m additional lining for the right canal for the next year. (Kasempa district in Northwestern province)

### Next month's Newsletter

Next month's newsletter will report on Annual Evaluation Workshop. The officers will make a presentation on the achievements and findings during the annual E-COBSI activities. Also, they will do discussions on issues such as water permit, organic pesticides, and increase/ decrease factors of simple weirs. Please look forward to it!