

Empowering Rice Researchers through JICA's Knowledge Co-Creation Program (KCCP)

JICA's Knowledge Co-Creation Program is one of the forms of technical cooperation that JICA carries out in Japan and third countries. The program is an important means of technical cooperation based on a fieldoriented approach that supports human resource development in developing countries.

One of the courses under the KCCP is "the Rainfed Rice Cultivation, Seed Production, and Variety Selection Techniques" at JICA Tsukuba, Japan. Rice researchers from different countries in Africa are selected to attend the training. Mr. Jonah Ssemwogerere, a rice technician in NaCRRI who is an important PRiDe counterpart was selected to participate in the training program for a period of 8 months.

He is grateful to the JICA Uganda Office and PRiDe II for the opportunity to attend the course as it has introduced him to the dynamics of seeds which is a big problem in Uganda and the skill of production of seeds and foundation seeds will be fundamental his work after the training.

He has also learnt about hybridization in rice which



constitutes the basics of rice variety development, which has also increased his knowledge in the physiology of the rice plant, rice disease control, soil analysis and analysis of rice data.

Mr. Ssemwogerere (Left) pollinating the rice plant – JICA Tsukuba

Another counterpart of PRiDe II, Ms. Solome Nakiyaga has been learning specific research plan formulation towards rice promotion through a training program, "Development of Core Agricultural Researcher for Promotion of Rice Production in Sub-Saharan Africa" organized by JICA Chubu.

Ms. Nakiyaga practicing emasculation for artificial pollination of a rice plant



Mr. Samson Buwembo, Agricultural Officer in Mayuge

District is also participating in a 7month-training, "Improvement of Rice Cultivation Techniques (for Extension Officers) at JICA Tsukuba in Japan. This training program aims to transfer the fundamental rice cultivation techniques (mainly lowland rice) as well as extension methods to enable extension officers to draw up extension plans/experimental plans based on the needs of targeted areas.



Mr. Buwembo analyzing soil at JICA Tsukuba

Sustainability of the Musomesa Field School (MFS) Approach

PRiDe II maintains the MFS demo-sites for technology transfer continuity. Rice Musomesa trains other farmers who are interested in improved rice cultivation techniques such as line planting, timely weeding and fertiliser use among others to increase rice production and productivity.

The Project supports the Rice Musomesa for seeds and fertiliser at the start of every season in the demo garden to train new and existing rice farmers. Agricultural Officers and the 5 ZARDI teams (Abi, Buginyanya, Bulindi, Ngetta and Rwebitaba) have been carrying on the training with active commitment at a total of 32 sites.

The maintained sites will be used as knowledge centres for farmer-to-farmer rice cultivation technique dissemination by the Musomesa and AOs and for training of farmers (TOF) in their respective communities.

The Project is collaborating with 32 districts to implement the MFS activities and will hand over the maintained demo-sites to the District Local Government as an exit strategy to ensure sustainability of the MFS approach.



In Bugweri, Kamuli and Namutumba Districts, Agricultural Officers and host farmers are already expending efforts to implement their own MFS at the maintained demo-fields.

Farmers with the harvested rice at the maintained MFS mother demo – site in Ibulanku Sub County, Bugweri District

"KAFULU" on Line Transplanting

From 23rd – to 25th August, Training for transplanting in lines targeted youths in villages was held in Doho Irrigation Scheme 2, Butaleja District.

The training object was to share the improved rice cultivation techniques with such young generations who work for lowland rice farmers.



Group photo - Participants of the training

The youth who graduated the training called "Rice Line KAFULU", meaning "Expert of line transplanting" in Luganda, Uganda's local language. They were given T-shirts as a certificate of skilled laborer.

Rice farmers in Doho Irrigation Scheme usually hire laborers for most of their work in the field. However, the laborers don't have appropriate rice cultivating skills. Even the existed rice farmers learn those techniques through the Musomesa Farmers School (MFS). They understand well that the techniques are very beneficial to improve productivity of rice.

Having said that PRiDe II has implemented MFS in Doho Irrigation Scheme for years, the scheme is huge and there are still a lot of farmers who don't know such techniques.

In order to improve this kind of situation, PRiDe II decided to conduct the training for those young farmers to be experts of line transplanting. The training includes land preparation, nursery bed making, making guide rope for line planting, transplanting in lines and also chemical using and fertilizer application.



The youth laborers who are learning how to conduct line planting

PRiDe II conducted the training at 3 sites for 3 days and around 30 youths from 5 laborer communities participated each day. Almost 90 young farmers were skilled and gained the beneficial knowledge. Actually, they noticed the skills make the work easier than the custom way. They appreciated this opportunity and were motivated to utilize the techniques in their communities. Such youths get jobs and existed rice farmers can proceed with field works more efficiently. PRiDe II also expects that those skilled laborers will contribute to disseminate techniques to improve rice productivity in Uganda. As a matter of fact, there are many young generations in villages who don't have any skills and knowledge.

If such youths could have



Training Participants – Wearing "KAFULU" T-shirts

more chances to learn the techniques, they could boost their self-esteem.

DNA Marker assisted selection for supporting Rice Breeding Team

PRiDe II is breeding for Rice Yellow Mottle Virus (RYMV) resistant variety. RYMV is causing 30 – 100% yield loss depending on its incidence in Uganda.

DNA Marker assisted selection accelerates the breeding process when researchers select only the rice lines with RYMV resistance gene. DNA marker shows that the plant has the resistance gene or not in laboratory without observing the symptoms of RYMV inoculated plants.

The selection method was introduced by Dr. Nitta, PRiDe Short Term Expert to make the breeding process more efficiently and surely. The Project is now on the implementation stage after trial period. PRiDe II also tries to empower researchers' skills in laboratory of NaCRRI to cooperate with field activities.





Sampling from Breeding lines

PRiDe staff, Mr. Patrick (left) and Mr. Geoffrey extracting DNA from samples

Internship Student

Mr. Reiji Nishida is a NaCRRI internship student from Tottori University in Japan. He is working with the Project to learn methodologies and actual practices in both extension and research activities.

His first half of the internship was carried out in Kenya in Alphajiri – a Japanese company aimed at creating supply chains and giving financial assistance to Kenyan small scale farmers.

PRiDe Uganda



He hopes to transfer the knowledge acquired in Kenya to the PRiDe Project.

Mr. Nishida explaining to the NaCRRI Training Unit about his previous work with Alphajiri

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