

Summary Sheet for Result of Evaluation Study After the Project

1. Outline of the Project		
Country: Uganda		Project title: NERICA Rice Promotion Project in Uganda
Issue/Sector: Agriculture		Cooperation scheme: Technical cooperation project
Division in charge: Field Crop Based Farming Area Group, Rural Development Department		Total cost (at the time of evaluation): Approximately 328 million yen
Period of Cooperation	(R/D) June 2008	Partner Country's Implementing Organization: National Agricultural Research Organization (NARO)
	August 2008 – June 2011 (3 years)	Supporting Organization in Japan:
		Related Cooperation: Technical Cooperation Project: Technical Assistance Support to Sustainable Irrigated Agricultural Development Project in Eastern Uganda Grant Aid: Rice Research and Training Center Japan Overseas Cooperation Volunteers (JOCV) for rice promotion
<p>1-1 Background of the Project</p> <p>Agriculture is a key industry of Uganda. It contributes to 20% of Gross Domestic Product (GDP), 48% of export earnings and employs 73% of the labor force. The Government of Uganda has been implementing some poverty reduction policies based on "Poverty Eradication Action Plan (PEAP)". It is considered that the agricultural development is an important issue which contributes to three out of the five focused subjects described in the PEAP. The government has prepared "Plan for Modernization of Agriculture (PMA)" as a sector programme, which aims to shift over the commercial farming.</p> <p>In light of this situation in Uganda, Japan International Cooperation Agency (JICA) started to dispatch an expert in NERICA in 2004 in order to develop human resources for researches and dissemination of tests, including variety tests. As the result, Uganda has become one of the most advanced countries in Sub-Saharan Africa in terms of NERICA extension. In March 2008, JICA and the Government of Uganda agreed on the ten-year collaboration on rice promotion under the Cooperation Program for Rice Promotion (2008-2017), and started this 3-year technical cooperation project in August 2008.</p> <p>1-2 Project Overview</p> <p>The Project aims to improve the production and productivity of NERICA rice by conducting various researches and developing the human resources for dissemination.</p> <p>(1) Overall Goal</p> <p>Rice is produced adequately for self-sufficiency and farmers' income is increased through the increased production and productivity of rice in Uganda.</p> <p>(2) Project Purpose</p> <p>NERICA Rice production is improved in quantity and quality in the target area.</p>		

(3) Outputs

Output 1: Research and extension capacity of NERICA (upland and lowland) in National Crops Resources Research Institute (NaCRRI) and Zonal Agricultural Research and Development Institutes (ZARDI) is enhanced.

Output 2: Appropriate NERICA rice production techniques are introduced to farmers, famers groups, rice millers, etc. in the Project area.

(4) Inputs (at the time of evaluation):

1) Japanese side: Total cost 328 million yen

Long-term Expert: 3 persons

Equipment: 50 million yen

Short-term Expert: 28 persons

Local cost: 130 million yen

Trainees received: 8 persons

2) Ugandan side:

Counterpart: 19 persons

Local cost: Approximately 10,000 US dollars

Land and Facilities: Office spaces, laboratories, training facilities, demonstration and research fields etc.

II. Evaluation Team

Members of Evaluation Team	(Specialized field: name, title) Japan side (1) Team Leader: Dr. Kunihiro Tokida, Senior Advisor, Japan International Cooperation Agency (JICA) (2) Cooperation Planning: Mr. Tatsuki Noda, Program Officer, Dry Field Farming Division, Field Crop Based Farming Area Group, Rural Development Department, JICA (3) Evaluation Analysis: Dr. Kumiko Shuto, Consultant, IC Net Ltd. Uganda side (1) Team Leader: Mr. Robert Khaukha, Ministry of Agriculture, Animal Industry and Fisheries (MAAIF) (2) Member: Dr. Thelma Akongo, National Agricultural Research Organization (NARO) (3) Member: Mr. Sunday Godfrey, MAAIF	
Period of Evaluation	April 5 - April 28, 2011	Type of Evaluation: Terminal

III. Results of Evaluation

3-1 Confirmation of Results

(1) Output

Output 1: Achieved

Research and extension capacity of NERICA has been considerable enhanced through development of demonstration plots (at NaCRRI, all of 9 ZARDIs, and at National Semi-Arid Research Institutes (NaSARRI)), implementation of various experiments, and development of technical manuals and training materials.

Output 2: Achieved

NERICA rice cultivation techniques were introduced to farmers, rice millers, and District Agricultural Officers (DAO) according to the plan. A cumulative total of 12,578 farmers and 1,677 non-farmers were trained and 64.3% of the trained farmers have actually started to cultivate NERICA rice. All of the trained rice millers have adopted the post-harvest processing methods introduced by the Project. A cumulative total of 86 rice millers have participated in the training.

(2) Achievement of the Project Purpose

It was not possible to accurately determine the level of achievement since reliable statistical data on NERICA rice production is not available in Uganda. Meanwhile, the direct effect of the Project on rice production was estimated to be approximately 6,500 tons. When the rice submitted by the trained farmers and rice millers were assessed based on the quality standard for the purity, shape, damage, and color etc., it was clear that the quality of rice had significantly improved after receiving the training, confirming the Project's positive impact on the improvement of NERICA rice quality. In view of the above, the Project Purpose is expected to be achieved satisfactorily by the end of the cooperation period.

(3) Implementation process

- Capacity building for the government officials and researchers at NaCRRI and ZARDI were conducted by way of various methods, including on-the-job training (OJT), group training, and training in Japan. The combination of these methods greatly contributed to the enhancement of skills, capacity, and motivation of the researchers and government officials.
- Introduction of new farming practices of rice as cash crop in rural community may have resulted in both positive and negative household/community-level social changes. It will be necessary to conduct further social-scientific studies on rural communities and also to establish a feedback system from farmers to the Project, instead of a one-way information provision from the Project to the farmers, so as to avoid or minimize the Project's negative impact on the society and the environment.

3-2 Summary of Evaluation Results

(1) Relevance

Relevance is high. The Project directly supports various rice promotion measures of the Government of Uganda, including the Agriculture Sector Development Strategy and Investment Plan (DSIP), Uganda National Rice Development Strategy (UNRDS), and the Coalition for African Rice Development (CARD). Meanwhile, the Government of Japan promotes the production of NERICA and other rice varieties in order to contribute to the modernization of agriculture by improving productivity and increasing the value of agricultural products. In view of the above, the Project is also aligned with Japan's aid policies to Uganda. Furthermore, the Project is also adequately addressing the needs of the target group, the farmers who desire to make livelihood improvements by increasing the agricultural income.

(2) Effectiveness

Effectiveness is high. Before the Project, there was no one who specialized in rice at NaCRRI or at ZARDIs. Institutional arrangements at NaCRRI for rice research and development are not realized and the effect of research activities is widely disseminated across the country through the efforts of ZARDIs and NaSARRI. It was confirmed that the Project's research and extension activities are directly leading to increased production and improved quality of rice. Therefore, it is assumed that the Project Purpose will

be achieved satisfactorily.

(3) Efficiency

Efficiency is high. The inputs from both Japanese and Ugandan sides were generally provided as agreed on the Record of Discussions and appropriate outputs were produced. In particular, the Project made efficient use of external resources to promote dissemination activities, for example training in collaborating with other organizations such as NGOs, World Food Programme (WFP), Food and Agriculture Organization (FAO) and the District Government. However, the problem is the shortage of researchers who specialize in rice research.

(4) Impact

Impact is moderate to high. It is not easy to predict if Uganda will achieve self-sufficient rice production in 3 to 5 years after the completion of the Project because it is largely influenced not only by the degree of technical dissemination but also by Uganda's agricultural policy, such as tariff on imported rice, and climatic conditions. Meanwhile, the Project is also giving impact on the neighboring countries and training participants from about 10 other African countries are disseminating NERICA rice in their countries. Introduction of new cash crop, such as rice, into rural communities is thought to have both positive and negative socio-economic and environmental effects. Therefore, careful studies on the social impact will be necessary.

(5) Sustainability

Sustainability is moderate. It is necessary to strengthen organizational and financial sustainability in order to continue the Project activities. It is an urgent need to increase the number of specialists in rice research and to assign a full-time training/dissemination coordinator.

3-3 Factors that Promoted Realization of Effects

(1) Factors Concerning Planning

Before the start of the Project, an individual expert had been dispatched to NaCRRRI from 2004. He established a network with other organizations which had a stake in rice production, collected basic scientific data, and developed basic teaching materials and manuals based on the data. The Project fully utilized this accumulated knowledge and network and was able to start research and extension activities in a full-fledged manner right from the start of the Project period. Effective use of the experiences and achievements of the previous phase is thought to have contributed significantly to the realization of effects.

(2) Factors Concerning the Implementation Process

None in particular.

3-4 Factors that Impeded Realization of Effects

(1) Factors Concerning Planning

None in particular.

(2) Factors Concerning the Implementation Process

Since the history of rice cultivation in Uganda is short, there are limited numbers of experts in rice research and this was an impediment to technical sustainability.

3-5 Conclusion

The Project has been able to produce expected outputs to a very high degree and these outputs are leading to the achievement of the Project Purpose. The Project has been working extensively not only at NaCRRI but also with other key stakeholders in research and extension, such as ZARDIs, NaSARRI, Agricultural Engineering and Appropriate Technology Research Center (AEARTREC), National Agriculture Advisory Services (NAADS), District Agriculture Department, NGOs, JOCV, and international organizations. Such collaboration has actualized efficient mobilization of human and financial resources, particularly in for dissemination activities. The Project's impact on other African countries is also worth noting and it now seems to be a realistic goal to make NaCRRI as a leading rice research and training institute in Africa. It is fair to conclude that the Project has a substantial prospect of achieving the Project Purpose by the end of the project period. Therefore, it would be appropriate to terminate the Project in June 2011 as planned.

3-6 Recommendations

(1) Strengthening of the operational structure of NaCRRI by improved staffing

Although the research and extension work in rice promotion at NaCRRI have become substantially active over the years, further strengthening of the operational structure of NaCRRI is needed for the enhancement of project sustainability. This can be done by assigning more researchers and research assistants specializing in rice and by urgently training them. Assignment of a coordinator for training and extension is also beneficial. NARO is advised to work in partnership with MAAIF to enrich human resources in rice science so that NaCRRI can actively function as a leading institution in rice research and dissemination.

(2) Securing funds for the continuation of project activities

Financial resources need to be secured in order to continue current research and dissemination activities. A realistic measure would be to secure budget allocation in collaboration with Agricultural Technology and Agribusiness Advisory Services Project (ATAAS), a national project for the development and dissemination of agricultural technologies, or with NAADS and other governmental organizations which implement projects under ATAAS. It is hoped that sufficient funds will be allocated from such initiatives as well as by NARO.

(3) Collecting reliable statistical data on the rice value chain

Agricultural statistics in Uganda is still underdeveloped and more accurate and useful data on rice value-chain is urgently needed for policy formulation and monitoring. It is advised hat MAAIF develop a better system to collect reliable statistical data on rice production in collaboration with international organizations such as the International Rice Research Institute (IRRI), Africa Rice Center (AfricaRice), and FAO.

3-7 Lessons Learned (Cases from this projects that may be a reference for the discovery, formulation, implementation, and operation for other similar projects)

(1) Improvement of research skills and knowledge through OJT

The Project emphasized the importance of hands-on trainings, both at national and regional levels, including the establishment and management of demonstration plots, field experiments, and OJT. Researchers were encouraged to conduct field experiments by trial and error and to learn from such experiences. In this way, they were able to obtain practical scientific knowledge, which they found useful when giving guidance to the farmer. The approach of encouraging researchers to learn by doing seems to be effective in enhancing their practical research skill and knowledge in agricultural promotion.

(2) The need to understand the impact of rice farming on households and communities

Gender and socio-economic impact on households and communities caused by the introduction of rice farming is little known to this date. It is important for the project implementers to better understand how an introduction of new crop or technology may impact the society or the environment. Such knowledge can then be utilized to develop appropriate dissemination system or approaches, as well as training materials focusing on social and agro-economic issues.

(3) The importance of publicity

The Project has actively disseminated the information on NERICA to African countries and to Japan. This helped to raise the awareness of NERICA among the people involved in agricultural development and resulted in the achievement of many partners for the promotion of NERICA rice in Africa.