

Summary

1. Outline of the Project	
Country : United Republic of Tanzania	Project title : Technical Cooperation in Supporting Service Delivery Systems of Irrigated Agriculture in The United Republic of Tanzania (TC-SDIA)
Issue/Sector : Agriculture	Cooperation scheme : Technical Cooperation Project
Division in charge : Rural Development Department	Total cost : 5.4 million yen
Period of Cooperation	5 years from 12 June, 2007 to 11 June, 2012
	(extension): none
	(F/U) :
	(E/N)
Partner Country's Implementing Organization : Ministry of Agriculture Food Security and Cooperatives (MAFC)	
Supporting Organization in Japan : The Ministry of Foreign Affairs The Ministry of Agriculture, Forestry and Fisheries	
Other related cooperation :	
<p>1-1. Background of the Project</p> <p>The agriculture sector is the driving engine of the Tanzania economy; the need to develop it can never be over emphasized. In 2008, the sector accounted for about 25.7 % of the GDP and 22 percent of foreign exchange earnings. The sector provides 95 % of the national food requirements and livelihood to more than 70 % of the Tanzanian population. Government of Tanzania (GoT) is recognizing the agriculture as the one of priority sector that contributes sustainable economic development. In this regard, GoT formulated the ASDP in 2004 as the core strategy to implement agriculture development in coordination with several development partners including Government of Japan (GoJ). The direction to prioritize the agriculture is fortified by the initiative named “Kilimo Kwanza (Agriculture First)” which was officially announced in 2009.</p> <p>GoJ has a long history of cooperation with GoT on agricultural development. A variety of cooperation was implemented since the 1970s to promote and establish irrigated rice cultivation techniques, starting from Lower Moshi irrigation scheme in Kilimanjaro region. After the success in Lower Moshi, cooperation expanded nationwide. As the result, the average yield of farmers who received training in six model sites located in various parts of the country has increased by about 40%, from 3.1t/ha to 4.3t/ha.</p> <p>The outcomes of these activities were highly appreciated by GoT. Then GoT requested to the GoJ a new TC for improving rice productivity in other irrigation schemes nationwide.</p> <p>In response to this request, the Preparatory Study Team was dispatched in 2006 and the framework of TC-SDIA was officially agreed between JICA and the Tanzanian authorities concerned with the signing of the Record of Discussions in May 2007. Mid-term Review was conducted in September 2009.</p> <p>1-2. Project Overview</p> <p>(1) Overall Goal:</p> <ol style="list-style-type: none"> 1. The training developed by TC-SDIA is implemented in other irrigation schemes. 2. The income from rice production among smallholder rice farmers in priority irrigation schemes is 	

increased.

(2)Project Purpose: Productivity of rice cultivation in priority irrigation schemes is increased through strengthening service delivery system of irrigated agriculture.

(3) Outputs:

1) Rice cultivation practices are improved in priority irrigation schemes through the farmer-to-farmer extension approach.

2) Technical capacities of the research, training and extension institutions are enhanced to further promote rice production in the future.

(4) Inputs (as of the Project's termination)

Japanese side :

Long-term Expert	<u>2</u>
Short-term Expert	<u>2</u>
Training in Japan	<u>7 for long courses, 28 for short courses</u>
Equipment	<u>JPY 34,006,666, T.Shs.87,590,283 and US D 66,695 (vehicles, etc.)</u>
Local cost	<u>T.Shs.2,198,167,166.77</u>

Tanzanian side :

Counterpart	<u>140 (Tanzania Mainland: 126 Zanzibar: 14)</u>
Training cost	<u>T.Shs.429,894,640 Districts:55.5%, MAFC:5.1%, Others:0.5%</u>
Land and Facilities:	<u>Project office and training facilities</u>

2. Evaluation Team

Members of Evaluation Team	Koji Makino	Team Leader	Deputy Director General Rural Development Department, JICA
	Hiroki Ishibashi	Irrigation Farmers Training	Technical Chief Rural Development Bureau, Ministry of Agriculture, Forestry and Fisheries
	Atau Kishinami	Evaluation Analysis	Permanent Expert International Development Associates Ltd
	Takahiro Nakamura	Cooperation Planning	Assistant Director Rural Development Department, JICA
Period of Evaluation	Day/ month/ Year - Day/ month/ Year 28/11/2011 – 16/12/2011		Type of Evaluation : Terminal Evaluation

3. PROJECT PERFORMANCE

3-1. Performance of Outputs

(1) Output 1

Output 1 shows the following positive progressions and is partially achieved.

- i) Overall ratio of women farmers (including Tanzania Mainland and Zanzibar) participated in the TC-SDIA standard training was 46% from 2007 to 2011. Women participation rate in Tanzania Mainland is 46% (men 4,372: women 3,734) as of Dec 2011. Women participation rate in Zanzibar is 59% (men 194: women 283) as of Dec 2011.
- ii) In Tanzania Mainland, out of 41 irrigation schemes identified for the standard trainings, 34 irrigation schemes completed baseline survey, 33 irrigation schemes completed residential training, 29 completed the first infield training, 27 completed the second infield training, 22 completed the third infield training, 25 completed the first monitoring and 14 completed the second monitoring by the time of the Terminal Evaluation¹.
- iii) In Tanzania Mainland, out of 23 irrigation schemes which conducted 3rd infield training, 13 irrigation schemes had more than 50 other farmer participants. In Zanzibar, no irrigation scheme had more than 50 other farmer participants.
- iv) In Tanzania Mainland, at least 10 basic rice cultivation technologies introduced through the training are adopted by more than 50% of KFs in 24 irrigation schemes out of 25 schemes with data available at the 1st monitoring and planning. The number of the adopted technology range from 8 to 44, and the average was 25. In Zanzibar, at least 10 basic rice cultivation technologies introduced through the training are adopted by more than 50% of KFs in all 3 irrigation schemes with the data available. The number of the adopted technology range from 35 to 43, average was 39.
- v) In Tanzania Mainland, at least 5 basic rice cultivation technologies introduced through the training are adopted by more than 50% of IFs in all the 25 irrigation schemes with data available at the 1st monitoring and planning. The number of the adopted technology range from 10 to 39, and the average was 22. In Zanzibar, at least 5 basic rice cultivation technologies introduced through the training are adopted by more than 50% of IFs in all 3 irrigation schemes with the data available. The number of the adopted technology range from 35 to 43, average was 39.

(2) Output 2

Output 2 shows the following positive progressions and is already achieved.

- i) In Tanzania Mainland, there were 6 NERICA varieties submitted to National Seed Release Committee and 5 of them were released in December 2009.
- ii) In Tanzania Mainland, irrigated rice cultivation guide and upland rice cultivation guide were prepared; multi-location rice variety trial guide will be prepared within the cooperation period.

3-2. Performance of the Purpose

- i) The Purpose shows the following positive progressions and is partially achieved.

The below table shows the number of irrigation schemes according to yield change by season comparing before and after the standard training in Tanzania Mainland.

¹ Standard training consists of i) baseline survey, ii) residential training at training institutes (12 days, for Key Farmers: KFs and extension officers), iii) 3 infield training at each irrigation scheme (3 days, for KFs and Intermediate Farmers: IFs), and 2 monitoring and planning session (3days). At the 3rd infield training, a field-day is conducted and skills and knowledge are spread among Other Farmers: OFs.

	Main (Nov-May)	Second (Jun-Dec)
More than 1.0 t/ha	11 (44%)	1 (33%)
0 to 1.0 t/ha	8 (32%)	2 (67%)
Decrease	6 (24%)	0 (0%)
Total	25 (100%)	3 (100%)

Main reason of not achieving the indicator was severe drought that resulted to i) transplanting overgrown seedlings, ii) insufficient water for irrigation, iii) late weeding, due to water shortage and so forth. There were some irrigation schemes under construction works that affected irrigation water supply or distribution. In Zanzibar, out of 3 irrigation schemes, 2 schemes increased the paddy yield by 1 t/ha.

ii) In Tanzania Mainland, so far, 1st monitoring and planning was conducted in 24 irrigation schemes, and 2nd monitoring and planning was conducted in 14 irrigation schemes.

3-3 Performance of Overall Goals

i) If each of 4 training institutes in Tanzania Mainland conducts 1 training per year from 2012, Overall Goal 1 will be achieved by 2015, considering 2 to 3 trainings were conducted at each training institute under TC-SDIA.

ii) The Team observed the yield increase, which indicates that Output 2 will likely be achieved.

4-1. Summary of Evaluation Results

(1) Relevance

The relevance is high for the following reasons.

- The farming practices of smallholder rice farmers are generally observed as low-investment and subsistent nature, without application of proper rice cultivation technologies. Most of the smallholder rice farmers have not had many opportunities to be exposed to the improved practices, resulting their rice productivity to remain low. It is thus understood that the contents and focus of TC-SDIA activities have adequately addressed the needs of the beneficiaries.
- National Rice Development Strategy (NRDS) was authorized and released by the MAFC on May 2009. This Strategy was prepared under the Framework of Coalition for African Rice Development which aims doubling rice production in Sub-Sahara Africa by 2018. According to NRDS, current self-sufficiency rate of rice is approximately 80% and gap is filled by imported one. This condition results in huge loss of foreign currency. Therefore MAFC seriously consider increasing the rice production.

(2) Effectiveness

The effectiveness is moderate for the following reasons.

- The Purpose is not fully achieved due mainly to climatic conditions and managerial errors of irrigation scheme.
- Since climatic conditions namely flood and draught, which negatively affect the yield of paddy, have occasionally occurred, the important assumption is not satisfied. Despite an unfulfilled important assumption, there are some indications of improving paddy productivities if those factors are favorable and improved for succeeding the approach of TC-SDIA.

(3) Efficiency

The efficiency is relatively high for the following reasons.

- All the two (2) Outputs have been mostly achieved, although the standard training courses have not

been conducted in some irrigation schemes, due mainly to financial constraints.

- In general, inputs were appropriate in terms of quality, quantity and timing and have sufficiently been utilized for conducting activities and producing Outputs. The inputs have been provided appropriately in line with the plan of TC-SDIA, except the budget for the standard training. Utilization of the readily available human resources together with tangible outcomes, such as the package of selected techniques and training materials for the standard training, by relatively small number of experts (initially 3, currently 5), have contributed to the efficiency of TC-SDIA.

(4) Impact

It is positively expected that the Overall Goal of TC-SDIA will be achieved in the near future, provided that the budget for capacity building is secured. Other impacts are as follows;

- Some trained farmers were invited to other irrigation schemes in order to disseminate techniques and practices learnt at the training by TC-SDIA. In addition, there have been many cases that farmers of non-target districts / irrigation schemes inquire MATIs of such techniques
- In Mbuyuni Irrigation Scheme, farmers lined an irrigation canal for approximately 75m and also constructed a flood protection dyke by their own finance and labor after irrigation scheme management training which triggered the District lining the canal for 325m more.

(5) Sustainability

Sustainability is moderate for the following reasons. Sustainability would be strengthened when the “Recommendations” specified in this summary are met.

- Policy support might be expected since TC-SDIA activities are in harmony with the Tanzanian policies and relevant to the needs of the government of Tanzania. The President emphasizes the importance of agriculture and has decided to increase budget for the enhancement of the rate of self-sufficiency in rice from current 80% to 100% within the next fiscal year as well as for significant increase in the number of extension officers.
- It was reported that majority of KFs adopted more than 10 techniques and also majority of IFs adopted more than 5 techniques initiated by TC-SDIA. The Team often observed that such techniques are applied in rice fields. High adoption rate of basic rice cultivation techniques is also proved by a series of interviews with farmers.
- It is deemed difficult to continue the standard training courses only through DADP after the completion of TC-SDIA.

4-2. Factors that have promoted project

(1) Planning

Based upon the recommendation by the Mid-term Review Team, the L/F was modified and approved at the 3rd JCC meeting held in October 2009. The main modifications included i) setting of the goal level, ii) adjustment of logical sequence between the Outputs and activities, and iii) modifications of some Objectively Verifiable Indicators. The modification contributed to better monitoring and management of the TC-SDIA.

(2) Implementation Process

- Cost required for the standard training is shared mostly by Districts, MAFC and JICA. It should be noted that in average more than half of the cost of the standard training course is borne by the Tanzanian side, mainly Districts. In order to secure the budget for capacity building, the stakeholders needed to communicate and negotiate among themselves. The mechanism and

procedures have definitely contributed to the stronger commitment and ownership towards the implementation of TC-SDIA.

- 6 downsized / modified standard training courses are planned to be carried out with the initiative of MAFC. In addition, based on the request by Districts, TC-SDIA conducted the course for 2 schemes at the same time with fewer participants from each scheme.

4-3. Factors that have inhibited project

(1) Planning

There was no particular factor that inhibited TC-SDIA.

(2) Implementation Process

Although stakeholders have been making efforts to secure the budget to ensure the timely conduct of the standard training, budget is still limited and remains as a major constraint in order to carry out the training courses.

4-4. Conclusions

TC-SDIA strengthened the dissemination of standard training throughout the country. It should be emphasized that this strategy could be put in place based on the asset created by those past cooperation and outcomes. TC-SDIA has contributed a lot to capacity development of government institution concerned and farmers directly and indirectly involved and made a significant progress even though the Team observed some challenges on the TC-SDIA.

4-5. Recommendations

The following recommendations are made by the Team.

(1) Budget Allocation for Capacity Building

There is common recognition that the balance of software (human resource capacity) and hardware (infrastructure such as irrigation scheme) is crucial for sustainability. Therefore, MAFC and Local Government Authorities (LGAs) are encouraged to explore more increase of budget allocation for capacity building of farmers.

(2) Monitoring of Down-sized Standard Training

GoT introduced the downsized standard training course and started its implementation. It is recommended to TC-SDIA to monitor the progress of down-sized training since it can contribute to further elaboration of the approach.

(3) Development of Appropriate Rice Production Dissemination Systems

There is a possibility that more active involvement of DALDO offices in the process of standard training can make the farmer to farmer extension approach more effective and sustainable. Therefore it is recommended to MAFC to discuss appropriate rice production dissemination systems in light of recently strengthening agricultural extension under the ASDP.

(4) Terminal Workshop of TC-SDIA

As mentioned in this report, significant impact has been observed among related institutions and farmers, through the TC-SDIA, and it can be said that the several efforts tried in the TC-SDIA has particular value, especially in the aspect of capacity building, and dissemination of technology for farmers. It is worth to share the experience and lessons learnt with broader stakeholders including GoT, donor partners

and NGOs. Therefore it is recommended to TC-SDIA to hold Terminal Workshop by June 2012.

(5) Examination of Next Cooperation

In 2010, GoT submitted a proposal to GoJ to request new cooperation with JICA, which is named as “Technical Cooperation in Supporting Rice Industry Development in Tanzania” in the context of NRDS. Therefore, it is requested to two Governments to examine a new cooperation with the following major views and recognition at the preparation stage.

- Approach for rain-fed lowland in addition to irrigated and rain-fed upland conditions.
- Further improvement of farmer to farmer extension approach as described above.
- Value chain viewpoints such as quality control and marketing in addition to productivity.
- Further strengthening of the stakeholders including farmers’ organizations.

Shortening the period gap between the end of TC-SDIA and the start of new TC as much as possible.

8. Lessons Learnt

The following are the lessons learnt for new projects or on-going similar projects.

(1) Alignment to Government System with Involvement of Decision-makers

TC-SDIA took following steps, a) Clarification of ASDP process, b) Clarification of training cost, c) Visit concerned Districts, d) Information sharing for ASDP process through workshops, e) Involvement of decision makers such as DEDs. Also TC-SDIA persisted to the policy of cost sharing for standard training. As a result, stakeholders’ capacity to request budget was strengthened and more than 60% of the cost for standard training was borne by Tanzanian side utilizing DADP under ASDP. In order to put the cost share in place, those steady steps and principle should be taken.

(2) Gender Consideration

In TC-SDIA, gender consideration was a key component when conducting the standard training and subject matter training courses. Basically, the participants of the training consist of 50% of men and women each. Also the gender consideration session is included in the standard training. By these arrangements, it is reported that each deepened the understanding of workload, and communication is improved at the home. In this respect, it is inferred that gender approach contributes effective adoption of technology among participants. Also, those technologies are expected to be extended to others through existing network which both men and women use in daily life.

(3) Active Exchange of Knowledge and Programs

TC-SDIA, especially KATC, hosted both local and foreign visitors formally and informally to exchange knowledge and experiences. These were good opportunities for TG members to deepen their knowledge and acquire new information. Those activities which are not precisely described in the L/F sometimes provide good occasion for capacity building.