

**Summary of Joint Terminal Evaluation for the
Project on Enhancing Development and Dissemination of Agricultural Innovations through Farmer
Research Groups (FRGs)**

I. Outline of the Project	
Country: Federal Democratic Republic of Ethiopia	Project Title: Project on Enhancing Development and Dissemination of Agricultural Innovations through Farmer Research Groups (FRGs)
Issue/Sector: General Agriculture	Cooperation Scheme: Technical Cooperation
Division In-Charge: Arid and Semi-Arid Farming Area Division Rural Development Department, JICA	Total Cost: Approximately 560 million Japanese Yen
Period of Cooperation	(R/D): April 2010 – March 2015
	<p>Partner Country’s Implementing Organizations:</p> <ol style="list-style-type: none"> 1. Ethiopian Institute of Agricultural Research (EIAR) 2. Regional Agricultural Research Institutes (RARIs) 3. Universities <p>Supporting Organization in Japan:</p> <ol style="list-style-type: none"> 1. Japan International Research Center for Agricultural Sciences (JIRCAS) 2. Universities
1. Background of the Terminal Evaluation	
<p>In the Federal Democratic Republic of Ethiopia (hereinafter referred to as Ethiopia), around 80% population is engaged in agriculture and agricultural production accounts for about 50% of its Gross Domestic Products (GDP). The agricultural is the backbone for the economy of the country and, therefore, the Government of Ethiopia (GOE) is continuously promoting the policy of Agricultural Development-Led Industrialization (ADLI) in the country.</p> <p>Since last few decades, Ethiopia is facing acute food shortages caused by droughts which are producing adverse effect upon its economy and industry. To overcome this problem the GOE is considering the food security as the most priority area and has been striving to increase agricultural productivity and diversification. Japan International Cooperation Agency (JICA) also places agricultural development and food security as one of its main cooperation area for Ethiopia.</p> <p>In response to the request from the GOE, JICA has implemented “Project on Strengthening Technology Development, Verification, Transfer and Adoption through Farmers Research Group” (hereinafter referred to as FRG I project) in collaboration with Ethiopian Institute of Agricultural Research (EIAR) and Oromia Agricultural Research Institute (OARI) from July 2004 to July 2009 to establish Farmers Research Group (FRG) approach as one of the core methods of research and extension in the target areas of East Shewa Zone and parts of Arsi and West Arsi Zones. According to the results of the joint terminal evaluation conducted by JICA and concerned authorities of Ethiopia in January 2009, FRG I project has been implemented as planned and the FRG approach has been adopted in two research centers, namely Melkassa Agricultural Research Center (MARC) and Adami Tulu Agricultural Research Center (ATARC).</p> <p>After the successful implementation of the FRG I project, the GOE requested the Government of Japan (GOJ) for the “Project of Enhancing Development and Dissemination of Agricultural Innovations through Farmer</p>	

Research Groups (FRGs)” (hereinafter referred as the Project) for scaling-up the results of the FRG I project. In response to the request, JICA dispatched the Detailed Planning Survey Mission in 2009 for the formulation of the Project. The Record of Discussions (R/D) was signed between JICA and concerned authorities of Ethiopia on 1 March 2010.

The Project was launched in April 2010 and will be completed in March 2015. Approximately after half-life of the Project, the Joint Mid-Term Review (MTR) was conducted from 13 to 28 August 2012 in order to review the status of the Project progress and to consider necessary measures to be taken for improving the implementation of the Project during the remaining period of the Project. The MTR Team found that the Project is on the right track to accomplish its purpose; however, the evidence was limited.

Before the completion of the Project, the Joint Terminal Evaluation Team (hereinafter referred to as the Evaluation Team) conducted the terminal evaluation of the Project from 12 to 29 October 2014 in accordance with the JICA Evaluation Guidelines of June 2010.

2. Project Overview

(1) Overall Goal

Livelihood of the farmers is improved by application of appropriate technologies developed or improved through FRG based research activities.

(2) Project Purpose

FRG approach is established in the national agricultural research system (NARS).

(3) Outputs

- 1) Training system to scale out FRG approach is enhanced in the NARS.
- 2) Appropriate technologies are developed / improved in focused priority research areas through FRG approach. (See the Note)
Note: Appropriate technologies meant in the Project are technologies accompanied with any innovations that are accessible and affordable for the farmers, and suitable in the specific agro-ecological conditions to improve their respective farming activities.
- 3) Capacity of researchers to prepare technical information materials for extension is developed.

(4) Inputs

Japanese Side:

1. Japanese Experts
2. Equipment

Ethiopian Side:

1. Counterpart Personnel: Project Director, Project Manager, Counterpart Personnel, and Administrative Personnel

2. Lands, Buildings and Facilities		
II. Evaluation Team		
Members of Evaluation Team	Japanese Side	
	1) Team Leader: Mr. Shinjiro AMAMEISHI, Director, Arid and Semi-Arid Farming Area Division, Rural Development Department, JICA 2) Cooperation Planning: Mr. Kenishi MATSUMOTO, Deputy Director, Arid and Semi-Arid Farming Area Division, Rural Development Department, JICA 3) Evaluation Analysis: Dr. Mahmood Ul Zaman KHAN, President, Japan Soft Tech Consultants (JUST Consultants), Japan	
Period of Evaluation	From 12 October to 31 October 2014	Type of Evaluation: Terminal Evaluation
III. Results of Evaluation		
1. Achievement		
<p>The Project has reviewed and modified the curriculum and syllabus of the FRG approach training, initially prepared by the FRG I project. The Project has conducted “Training on FRG Approach” for agricultural researchers for possible application of FRG approach in their research activities. The Project has conducted FRG approach trainings 56 times in total, which have been participated by 616 researchers from 91 agricultural research institutions as of 5 September 2014. Besides implementing FRG approach trainings in Ethiopia, 44 Counterpart personnel were dispatched to Japan for long-term and short-term trainings on subjects relevant to the scope of the Project, such as “Development of Core Agricultural Researchers for Rice Promotion in Sub-Saharan Africa” and “Horticultural Crop Cultivation and Extension for Africa”. 42 Counterpart personnel were dispatched to Uganda for long-term and short-term trainings on rice research, such as advanced rice technology, rice production and extension, rice post-harvest and agricultural machinery on rice production, etc. Three Counterpart personnel were trained in Tanzania on rice production and rice breeding. Most of the participants of the training reported that they are very much satisfied with the curriculum and syllabus of the training, duration of training, methodology of the training, and expertise and skills of the trainers. They also have reported that the training has drastically improved their understandings for the FRG approach and they are applying FRG approach in their research activities. The monitoring visits conducted by the Project Team also confirmed that more than 70% of researchers those participated in the FRG approach trainings are applying FRG approach in their research activities.</p> <p>The Project has invited research proposals from researchers in RARIs, Agricultural Research Centers (ARCs), and universities for FRG based research projects to be supported by the Project. 43 FRG based research projects were supported by the Project. Out of 43 FRG based research projects, 16 have been successfully completed, 20 have been terminated, and 7 are ongoing. 20 terminated projects seem quite large in comparison with 16 completed projects and seven ongoing projects. 20 research projects were terminated not because the research was not good or the research was not applicable, but mainly because the researchers could not provide the detailed required information for their research. Most of the researcher involved in FRG based research projects supported by the Project reported that they are very much satisfied with the results of their research and the cooperation and assistance provided by the Japanese experts. The Project Team is analyzing the results of the FRG based research projects supported by the Project to develop the appropriate technologies in focused priority research areas through FRG approach. After the completion of the analysis of the results of the FRG based research projects supported by the Project, the Project Team will calculate the percentage of the FRG farmers those adopted the appropriate technologies which are developed by the Project.</p> <p>Development of technical information materials for extension was included in the FRG approach training</p>		

participated by more than 600 researchers. The Project has also conducted specific four days trainings on development of technical information materials for extension for researchers involved in FRG based research activities and prepared the Guidelines for preparing the technical information materials for extension for researchers. The Project has conducted training on development of technical information materials for extension five times with support of Japanese experts which was attended by a total of 77 researchers. In the training, care has been taken that the technical information materials for extension should be developed according to the level of understanding of the target audiences. The researchers have developed several technical information materials for extension in local languages in close collaboration with the Project Team. Some of the Counterpart Personnel reported that few NGOs, (for example, Self Help Africa), are using the technical information materials for extension developed by the Project. The Project Team will test the quality of the technical information materials for extension developed by the researchers involved in the research projects supported by the Project and calculate the percentage of the technical information materials users (DAs, NGOs, etc.) those understood, utilized and are satisfied with the quality of technical information materials developed by the Project.

The Project has modified the FRG Guidelines prepared by the FRG I project and distributed to relevant Counterparts not only in hard copies, but also in form of CD which has wider potential for the dissemination of the FRG Guidelines. The Project is also supposed to prepare different FRG Guidelines for different geographical areas (administrative regions) and research areas (for example, pastoral and agro-pastoral, agronomy, agro-ecology, agro-engineering, livestock, etc.), however, the Project Team has reported that it would not be possible to prepare the regional and research areas specific FRG Guidelines before the completion of the Project. The Pastoral Community Development Project (PCDP) Phase III of the World Bank has prepared the Pastoral and Agro-Pastoral Research Group (PAPRG) Guidelines based on the FRG Guidelines prepared by the Project and asked the Project Team to provide their comments on the PAPRG Guidelines. The Project Team is working in close collaboration with the PCDP Phase III of the World Bank for the improvement of the PAPRG Guidelines. However, some of the Counterpart personnel and researchers did not like this idea to prepare different FRG Guidelines for different geographical areas and different research areas. They suggested that the FRG Guidelines should be general and flexible to be adopted in different geographical areas and different research areas with some modification according to the needs of the geographical area and research area. Most of the relevant stakeholders are very much satisfied with the quality of the FRG Guidelines and expect that the FRG Guidelines will improve the understanding of researchers for applying FRG approach in their research activities as well as improve the understanding of farmers to apply the FRG approach in their farming.

The Project has organized 32 seminars on several topics, such as Rice Cultivation Technologies, Quality Seed Technologies, Dairy Products Production Technologies, Meat Production Technologies, Participatory Research Methods, Development of Technical Information Materials for Extension, Proposal/Report Writing Skills Development, Audio-Visual Presentation Techniques, etc. by inviting experts as presenters in respective fields from time to time. A total of 599 participants attended these seminars. The participants of the seminars reported that the seminars significantly improved their knowledge on the application of FRG approach as well as improved their skills for preparing the presentations and reports.

Beside the Project activities, the Project is planning to support the Participatory Research Training that will be conducted by the PCDP Phase III of the World Bank. The Project is also planning to organize a workshop on Participatory Research Approaches, including the FRG approach, by inviting relevant stakeholders to share the achievements of the Project. The Project Team is also planning to establish a forum to continue exchange of information for strengthening the Participatory Research Approaches, including the FRG approach, in the agricultural research system and at the higher education institutions.

It is noteworthy that the Project was approached by the Malagasy Agricultural Research Organization (FOFIFA)

of Madagascar for introducing the FRG approach into their agricultural research system. The Project Team discussed the idea of exchange visits between researchers of EIAR involved in FRG based research activities and researchers of FOFIFA to exchange ideas for the FRG based research activities and the World Bank facilitated the exchange visits of researchers of EIAR and FOFIFA. Two researcher of FOFIFA visited Ethiopia to learn about FRG based research activities of researchers in EIAR in September 2012. Chief Advisor and Project Manager of the Project visited Madagascar to exchange ideas regarding FRG based research activities in January 2013. Three researchers of FOFIFA also attended FRG approach trainings in Ethiopia in April 2013.

Participatory research is already adopted at the agricultural research institutions and educational institutions. FRG approach is one of the tools for the participatory research in which farmers are actively involved in every stage of the research. The level of understanding of FRG approach among researchers as well as in farmers is encouragingly increasing, and it was observed that the FRG approach is being well adopted in research activities of targeted research institutions and targeted universities. Jimma University, Mekelle University, Bahir Dar University, Haramaya University, and Hawassa University are considering including FRG approach as one of the useful participatory approaches in their curriculum. In order to further enhance the FRG approach, it has to be incorporated in the curriculum of more and more agricultural universities in Ethiopia.

2. Summary of Evaluation Results

(1) Relevance

1) Consistency with the National Agriculture Sector Policies and Development Policies of Ethiopia

The Project purpose “FRG approach is established in the NARS” and Overall Goal of the Project “Livelihood of the farmers is improved by application of appropriate technologies developed or improved through FRG based research activities” are still relevant with the following national agriculture sector policies and development policies of the GOE.

Agriculture Sector Policy and Investment Framework: Ten Year Road Map (2010 – 2020) draws attention to the critical role of research in agriculture sector, emphasizing the adaptability of technologies in widely different agro-ecological zones of the country.

GTP: 2010/11 – 2014/15 regards the agriculture as one of the primary economic sectors. Concretely, smallholder agricultural development, pastoral development and private sector agricultural development are raised as three major areas, and strengthening of research-extension farmers’ linkage is highlighted as one of the implementing strategies of the agricultural component of the GTP (2010/11 – 2014/15).

2) Consistency with the Japanese Policy

The Project purpose “FRG approach is established in the NARS” and Overall Goal of the Project “Livelihood of the farmers is improved by application of appropriate technologies developed or improved through FRG based research activities” are still in consistency with the following Japanese policies for Ethiopia.

Japan’s Overseas Development Assistance (ODA) Policy for Ethiopia aims to provide support for realization of food security and industrialization of the country. Agricultural and rural development is set as one of the four priority areas, with concrete focus on improving productivity of smallholder farmers, natural disaster preparedness and mitigation, water resources development, etc.

Japan's ODA Policy to Ethiopia: Rolling Plan has included the Project under Agricultural Productivity Improvement Program under Agriculture and Rural Development Priority Area 1.

3) Appropriateness of Selection of Target Groups and Consistency with the Needs of the Target Groups

The main target groups of the Project are the staff of EIAR, researchers, and the farmers of FRGs. Enhancing development and dissemination of agricultural innovations through FRG approach is one of the main responsibilities of the target groups. The capacity building for enhancing development and dissemination of agricultural innovations through FRG approach is an urgent need for the target groups. Therefore, the selection of the target groups is appropriate and the Project is still in consistency with the needs of the target groups.

4) Comparative Advantage of Technical Assistance Provided by the Japanese Side

JICA has implemented numerous projects for strengthening agriculture sector throughout the world, including African countries, and has necessary technical competence and experience.

The Project aims to achieve its Project purpose "FRG approach is established in the NARS" by using advanced technical expertise and extensive experience of the Japanese Experts, organizing trainings/seminars/workshops for the Counterpart personnel, and provision of necessary machinery and equipment. Thus the cooperation by Japan is very relevant to support the capacity development of Counterparts for enhancing development and dissemination of agricultural innovations through FRG approach.

(2) Effectiveness

The logical relationship of Outputs and the Project purpose is relevant. The Project has been on track and the Project purpose is very likely to be achieved at the completion of the Project through the combination of activities of Outputs.

One of the contributing factors towards the achievement of all Outputs and Project purpose appeared to be close working relationship among the Project Team and between the Project Team and relevant stakeholders.

The main hampering factor is frequent transfers of Counterpart personnel, particularly the frequent transfer of researchers involved in FRG based research projects supported by the Project. The Project has taken precaution on this issue and designed its activities to minimize the adverse effects of frequent transfers of Counterpart personnel. However, frequent transfer of researchers involved in FRG based research projects supported by the Project caused discontinuity or in some cases termination of FRG based research projects supported by the Project.

Other hampering factors are poor research skills of junior researchers and weak system to evaluate the quality of the research activities of the researchers at the agricultural research institutions.

(3) Efficiency

The inputs are appropriately provided from both Japanese side and Ethiopian side as planned and all inputs are fully utilized to generate the intended Outputs. The quality, quantity, and timing of inputs are also appropriate.

Project activities are well received by the Counterpart personnel. Several kinds of trainings/seminars/workshops/study tours for Counterpart personnel during the implementation of the Project are appreciated by the

participants. However, the Counterpart personnel faced difficulties in attending all proposed Project activities due to their engagement in their assignments in their respective organizations.

(4) Impact

Through the various Project activities, it can be said that the impact on the Overall Goal of the Project is positive.

The important assumptions for the Outputs and Project purpose in the PDM did not affect the positive impacts of the Project. The proper allocation of human, financial, and physical resources will be required to sustain the positive impacts of the Project after the completion of the Project. Several other development partners, particularly World Bank, IFAD, and Government of Netherland, are also involved in strengthening of agriculture sector in Ethiopia and it is expected that the other development partners will continue to provide required resources, particularly financial resources, for the strengthening of agriculture sector in Ethiopia.

No negative/indirect/unexpected impact has been reported.

(5) Sustainability

1) Policy Aspects

Innovative research and innovation of new technologies in agriculture sector are the major priorities guided by the Agriculture Sector Policy and Investment Framework: Ten Year Road Map (2010 – 2020), GTP 2010/11 – 2014/15. The Project has supported implementation of the Agriculture Sector Policy and Investment Framework: Ten Year Road Map (2010 – 2020), and devotes its continuing efforts to contribute for the achievement of targets of the GTP (2010/11 – 2014/2015).

Importance of improvement in the agricultural sector is well recognized and the improvement of linkages among research, extension, and farmers are highlighted as one of the aspects to further be strengthened. The EIAR has also been emphasizing on the integration of participatory research approaches, including FRG approach, in the research system.

It is expected that the strategies and policies for strengthening FRG approach in the research system by the EIAR will remain favorable for the Project effects to be sustained after the completion of the Project.

2) Organizational Aspects

The roles and responsibilities of Counterpart personnel for the Project implementation were clearly defined and shared among the Counterpart personnel. The Counterpart personnel reported that their institutional capacity for the FRG approach has been drastically strengthened by the Project activities. The Project also fostered the relationship between the staff of the EIAR, research institutions, universities, researchers, and the farmers of FRGs. It is expected that the Counterparts could pursue relevant activities to keep Project effects after the completion of the Project.

3) Financial Aspects

In order to keep continuing the Project activities after the completion of the Project, EIAR has to make serious efforts to secure proper funding from the concerned authorities of Ethiopia. Therefore, financial aspects are a

matter of concerns for the sustainability of Project effects after the completion of the Project.

Several other development partners, particularly World Bank, IFAD, and Government of Netherland, are also involved in strengthening of agriculture sector in Ethiopia and it is expected that the other development partners will continue to provide required resources, particularly financial resources, for the strengthening of FRG approach in the NARS of Ethiopia.

4) Technical Aspects

To ensure the technical sustainability of the Project, it would be necessary for the EIAR and other Counterparts to continue the technical assistance, such as organization of trainings/seminars/workshops, etc. provided by the Project for the staff of Counterparts in form of refresher trainings and organization of seminars and workshops after the completion of the Project.

The Counterparts have deepened their understanding for the Outputs and Project purpose through various Project activities. Most of staff of the Counterparts expressed that the technical transfer has been conducted very effectively and efficiently through various Project activities.

The Project completion is approaching and it is necessary for the EIAR to discuss in details the Project exit strategy with the Project Team to ensure the sustainability of the Project after the completion of the Project.

3. Conclusion

Based on review of relevant documents of the Project, such as Minutes of Meetings (M/M), Detailed Design (D/D) Report, R/D, PDM, PO, MTR Report, Project Progress Reports, etc.; questionnaire to relevant stakeholders; a series of meetings and discussions with Counterparts, other development partners, and Japanese Experts; site visits as well as results of discussion among members of the Evaluation Team, the Evaluation Team concluded that the Project performance is satisfactory.

4. Recommendations and Lessons Learned

(1) Recommendations

Recommendations for the remaining period of the Project

(1) Promotion of developing appropriate technologies

The Project has to develop the appropriate technologies in focused priority research areas through FRG approach before the completion of the Project and, therefore, it is recommended to complete the analysis of the results of the FRG based research projects supported by the Project as soon as possible to select the appropriate technologies in focused priority research areas through FRG approach. The Project also has to calculate the percentage of the FRG farmers those will adopt the appropriate technologies developed by the Project before the completion of the Project and it also depends upon the completion of analysis of the FRG based research projects supported by the Project.

(2) Promotion of developing the user-friendly and easy-to-understand technical information materials

In order to meet the relevant indicator for the development of technical information materials in the PDM

mentioned as “not less than 50 technical information materials are developed”, the Project has so far developed 12 technical information materials and has to develop the remaining 38 technical information materials. In addition, the Project also has to calculate the percentage of the technical information materials users (DAs, NGOs, etc.) those understood, utilized and are satisfied with the quality of technical information materials developed by the Project before the completion of the Project and, therefore, it is recommended to develop and test the developed technical information materials as soon as possible, and then calculate the percentage of the technical information materials users (DAs, NGOs, etc.) those understood, utilized and are satisfied with the quality of technical information materials developed by the Project. It is also strongly recommended that the Project Team should facilitate the researchers to develop the user-friendly and easy-to-understand technical information materials by inclusion of pictures, simple charts, etc., which can be easily understood and utilized by the end users (DAs, NGOs, and farmers, etc.).

(3) Networking with potential organizations

It was found that there are several research institutions, NGOs, and development partners those well acknowledged the FRG approach. Inclusion of the FRG approach in research activities by other organizations must be highly appreciated. In order to broadly extend the FRG approach, the number of these supporting organizations is expected to increase. Therefore it is recommended that further collaboration with these potential supporting organizations should be explored to enhance the sustainable promotion of the FRG approach through meetings, seminars, and workshops before the completion of the Project. It is also recommended to concerned Ethiopian authorities to consider conducting joint activities, such as jointly development of technical information materials, joint field works, etc. with these potential supporting organizations in the future.

(4) Inclusion of the FRG approach in the Ethiopian agricultural research strategy

At the time of terminal evaluation, there is no clear evidence for the inclusion of FRG approach in the Ethiopian agricultural research strategy and, therefore, it is strongly recommended that the Project Team should conduct advocacy activities with the concerned authorities to convince them for the inclusion of FRG approach in the Ethiopian agricultural research strategy before the completion of the Project.

(5) Inclusion of the FRG approach in the curriculum of universities

It is reported by few of the Counterpart personnel and researchers that few universities with agriculture faculties, such as the Bahir Dar University, Jimma University, Mekelle University, Haramaya University, and Hawassa University are considering including the FRG approach as one of the participatory research approaches in their curriculum. It would be an ideal situation if universities with agriculture faculties include the FRG approach as one of the participatory research approaches in their curriculum and, therefore, it is recommended that the Project Team should also consider advocacy activities with the concerned authorities of the universities for the inclusion of the FRG approach in their curriculum.

(6) The Project Exit Strategy

It is recommended that the Project Exist Strategy should be discussed among the Project team, EIAR and other concerned authorities as soon as possible.

Recommendations for after the completion of the Project

(1) Continuous efforts for the realization of recommendations for the remaining period of the Project

Recommendations made for the remaining period of the Project are very important even after the completion of the Project. It is strongly expected that continuous efforts should be made by the Project Team and concerned Ethiopian authorities for the realization of the recommendations made for the remaining period of the Project, particularly for recommendations (1) to (5).

(2) Necessary resources for further promotion of the FRG approach by the relevant organizations

It is strongly recommended to the relevant organizations that required financial and human resources should be secured to sustain the positive impacts of the Project. Details are as follows:

Financial resources: Sufficient budget for the relevant activities of the FRG approach should be secured and better allocated by the relevant organizations, such as EIAR, RARCs, universities, etc.

Human resources: Enough human resource should be secured by the relevant organizations, such as EIAR, RARCs, universities, etc., for the facilitation of the FRG-related activities. With regard to the FRG based research projects, it is expected that the assigned researchers would be involved with responsibility and the transfer of assigned researchers should be minimized up to maximum level until the completion of the research project. It is needless to mention that the knowledge and skills of the existing researchers should also be improved at maximum possible level.

(3) Strengthening of rice research

Rice research is one of the most important focused priority research areas of the Project. To support rice research, JICA has provided various kinds of supports such as technical trainings in Japan and in third countries (Uganda and Tanzania), organization of technical seminars/workshops, as well as technical and financial support for the construction of NRRTC. The GOE officially requested a new project on rice development at NRRTC, which is expected to promote rice research activities with the FRG approach, and develop and extend appropriate techniques on rice cultivation. It is strongly requested that necessary preparations should be made in timely manner by the concerned authorities of Ethiopia, such as securing the sufficient budget, allocation of staff, and materialization of the blueprint on the activities at NRRTC, so that the project on rice development should deliver expected fruitful outcomes.

(4) Prompt actions for the realization of recommendations, monitoring and follow-up activities

It is strongly expected by the Project Team and the concerned authorities of Ethiopia to take prompt actions for the realization of each recommendation, monitor the progress, and conduct necessary follow-up activities.

(2) Lessons Learned

JICA could enhance Project achievements and lessons learned into future formulation and implementation of similar technical cooperation projects.