

Evaluation Result Summary

1. Outline of the Project	
Country: The Federal Democratic Republic of Ethiopia	Project Title: Strengthening Technology Development, Verification, Transfer and Adoption through Farmers Research Groups (FRGs)
Issue/Sector: Agriculture	Cooperation Scheme: Technical Cooperation Project
Division in Charge: Rural Development Department	Total Costs (as of the moment of the evaluation): Approximately 530 million Japanese Yen
Period of Cooperation (R/D) : From July 16, 2004 to July 15, 2009	Partner Country's Implementing Organization: Ethiopian Institute of Agricultural Research (EIAR) / Melkassa Agricultural Research Centre (MARC) / Oromia Agricultural Research Institute (OARI) / Adami Tulu Agricultural Research Centre (ATARC)
	Supporting Organization in Japan: None
	Other Related Cooperation: Technical Cooperation Project "Project for Irrigation Farming Improvement", Technical Cooperation Project "Participatory Forest Management Project in Belete-Gera, Phase II"
<p>1-1 Background of Project</p> <p>Agriculture is a highly significant industry in the Federal Democratic Republic of Ethiopia (hereinafter referred to as "Ethiopia"), which contributes to approximately 50% of its GDP while absorbing 85% of its working population. The Plan for Accelerated and Sustained Development to End Poverty (PASDEP), the Ethiopian PRSP, also regards agriculture as a priority sector. Considering the longstanding food crisis in the country, it is crucially important that small farmers, who produce 97% of agricultural products, adopt improved technologies to increase their agricultural productivity. To this end, aiming to develop agricultural technologies with the participation of farmers so that those can be easily applied by them, the Ethiopian Institute of Agricultural Research (EIAR) has adopted the Farmer Research Group (FRG) approach, which promotes collaborative research activities by farmers, researchers and extension workers to develop/improve agricultural technologies, since the late 1990s. However, their activities in the early stage were generally conducted in a top-down fashion and failed in taking into account farmers' demands sufficiently. In 2003, then, the Ethiopian government requested the Japanese government to provide technical cooperation to establish a technology development mechanism based on the farmers' participation and to improve the dissemination system of appropriate technologies.</p> <p>Given this background, Japan started its cooperation through the technical cooperation project "Strengthening Technology Development, Verification, Transfer and Adoption through Farmers Research Groups" (from July, 2004 to July, 2009), having four relevant organisations as its counterparts, namely, the Ethiopian Institute of Agricultural Research (EIAR) as a coordinating agency for all research activities and entities of regional state government of Oromia, a major grain-producing region in Ethiopia, which are the Oromia Agricultural Research Institute (OARI), the Melkassa Agricultural</p>	

Research Centre (MARC) and the Adami Tulu Agricultural Research Centre (ATARC).

1-2 Project Overview

(1) Purpose of the Cooperation

In order to solve problems faced by farmers in Ethiopia, this project aims to establish means and a system for research activities and technology development based on participation of farmers.

(2) Overall Goal

1. Livelihood of the target FRG members is improved.
2. Production of major commodities in the target area is increased.
3. FRG approach is adopted and utilized in other research centres.

(3) Project Purpose

FRG approach is established as one of the core methods of research and extension in the East Shewa Zone.

(4) Outputs

1. FRG guidelines are developed.
2. Appropriate technologies which meet farmers' needs and capacities are developed /improved.
3. Extension components of the FRG approach are improved.
4. Linkage among stakeholders is strengthened.
5. Documents on experiences and lessons learned from the FRG approach practices are published.

(5) Input (at the moment of the evaluation) as of January 2009

1) Japanese side

Total Cost of Input: Approximately 530 million Japanese Yen (as of the moment of the evaluation)

Long-term Experts: 4 experts in total (a team of three persons)

Short-term Experts: 16 experts in total (approximately 27 man-months)

Training Overseas: 31 trainees in Japan (90 man-months) and 34 trainees in a third country (10 man-months)

Equipment: Approximately 36.419 million Japanese Yen

Local Cost: Approximately 100.903 million Japanese Yen

2) Ethiopian side

Counterparts: 13 persons

Facilities and Equipment: Office rooms for the experts, vehicles, office equipment

Local cost: Approximately 4.890 million Japanese Yen

2. Evaluation Mission

Members	Assigned Roles	Name	Organisation/Position
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	Leader	Hirofumi HOSHI	East and Southern Africa Division , Rural Development Department, JICA/ Team Director
	Evaluation/Analysis	Jun KAKINUMA	Earth and Human Corporation/ Consultant
	Research and Extension	Seizaburo ASANO	East and Southern Africa Division, Rural Development Department, JICA / Programme Officer
Period of Evaluation	From January 10 to January 30, 2009		Type of Evaluation: Terminal Evaluation
3. Summary of the Evaluation Results			
3-1 Assessment of Achievements			
<p>3-1-1 Achievements by Intended Output</p> <p><u>Output 1: FRG guidelines are developed.</u></p> <p>Output 1 is considered to be achieved satisfactorily by the end of cooperation period.</p> <p>Indicator 1: The final version of the FRG guidelines is completed.</p> <p>(1) Since a draft version of the FRG guidelines was prepared in 2005, it has been reviewed for modifications over several times.</p> <p>(2) A workshop for the final review of the guidelines is planned for March 2009. Based on the input from the workshop, the final version will be completed in May 2009.</p> <p><u>Output 2: Appropriate technologies which meet farmers' needs and capacities are developed /improved.</u></p> <p>Output 2 was achieved satisfactorily.</p> <p>Indicator 2-1: 80% of the developed/improved technologies are adopted by more than 60% of FRG farmers.</p> <p>Indicator 2-2: More than 50% of farmers are highly satisfied with technologies.</p> <p>(1) 83% of the developed/improved technologies have been adopted for their effectiveness by 85% of the FRG farmers.</p> <p>(2) 98% of the FRG farmers are satisfied with FRG activities.</p> <p><u>Output 3: Extension components of the FRG approach are improved.</u></p> <p>Output 3 has been achieved partially.</p> <p>Indicator 3-1: The extension activities have 10 times as many non-FRG farmer participants as the total number of FRG farmers.</p> <p>Indicator 3-2: Demonstration, field day and farmers' training are conducted by FRG farmers at least once a year respectively.</p> <p>Indicator 3-3: Type/frequency of Development Agencies' (DAs') services are improved.</p> <p>Indicator 3-4: At least one extension material is produced based on results of each research/technology development activity.</p>			

- (1) There was a case where the number of non-FRG participants reached 20 times more than the total number of FRG farmers for the type of technologies included in the topic of the event. As the potential number of farmers who may be interested in apply a new technology varies depending on the type of technology, the number of participants has varied among the events of extension activities.
- (2) Demonstrations and field-day activities are conducted periodically and the cumulative number of farmers participated in those events have reached 1,693.
- (3) 324 extension workers, or DAs, participated in the training courses to apply extension techniques such as use of drawings and diagrams for their activities. Meanwhile, it is observed that there is a certain limitation in terms of increasing the frequency of their services because DAs' workload is already quite large.
- (4) The Extension Material Development Committee was established. It has held two meetings and is now working on preparation of materials on 40 FRG subjects.

Output 4: Linkage among stakeholder organizations is strengthened.

Output 4 has been achieved partially.

4-1. All concerned stakeholder organisations are involved in FRG activities.

4-2. Variety in types of collaboration among stakeholders is increased.

4-3. More than 80% of stakeholders are highly satisfied with work relationship among themselves.

- (1) The FRG farmers, researchers, the Oromia State Agriculture Bureau, the DAs and non-FRG farmers have been involved in FRG research and extension activities.
- (2) In addition, farmers, researchers and the DAs have participated in meetings and training for the project, and they have tried to organise collaborative activities with NGOs and private companies.

Output 5: Documents on experiences and lessons learned from FRG approach practices are published.

Output 5 has been achieved satisfactorily.

5-1: Documents are published by the end of the Project

5-2: Five research papers are published.

- (1) FRG research inventory, research reports and guidelines has been published.
- (2) Ten research papers have been published.

3-1-2 Achievement of the Project Purpose

Project Purpose: FRG approach is established as one of the core methods of research and extension in the East Shewa Zone.

Indicator 1: Number of well-functioning FRGs increases to reach 70% of the whole number of

FRGs.

Indicator 2: Production of major crop commodities is increased by 15% among the FRG farmers.

Indicator 3: Productivity of major crop commodities is increased by 15% among the FRG farmers.

Indicator 4: An increased number of farmers in the surroundings of target FRG farmers adopt newly developed/improved technologies.

The project purpose is considered to be achieved for the most part by the end of cooperation period. The level of achievements and estimated advancements by each indicator is as mentioned below. The results for the indicators 2 and 3 are outstanding, most probably owing also to other background factors such as introduction of improved seeds and application of irrigation water.

- (1) Indicator 1: Many of FRGs are functioning; however, there is a diversity among those groups in terms of target crops and focuses of their research activities. The level of functioning also greatly varies among them.
- (2) Indicator 2: A remarkable increase has been observed as follows (the data stand for the ratio of production in 2007 to that in 2004 respectively): teff 225%, maize 479%, kidney beans 203%, onions 242%, tomatoes 336%, red peppers 137%.
- (3) Indicator 3: A remarkable increase has been observed as follows (the data stand for the ratio of land productivity in 2007 to that in 2004 respectively): teff 133%, maize 210%, kidney beans 150%, onions 185%, tomatoes 335%, red peppers 295%.
- (4) Indicator 4: More than five times as many farmers as the number of FRG farmers have introduced newly developed/improved technologies.

3-2 Evaluation Results

3-2-1 Relevance: The project is highly relevant.

The present project supports the policy stated in the national development plan “PASDEP 2005/06 – 2009/10” to promote development of new technologies and improvement of extension services. On the other hand, it is highly consistent with Japanese policies expressed in the Country Programme Action Plan for Ethiopia and the TICAD IV Yokohama Action Plan as well. It was also confirmed that the introduction of FRG approach corresponds to the needs among implementing organisations, researchers and farmers.

3-2-2 Effectiveness: The project is highly effective.

The major activities have been conducted as planned and have produced output to achieve the project purpose. That is to say, the concept of compiling necessary methodological guidelines (output 1), demonstrating their effectiveness thorough practices of the project (output 2) while constructing the basis of collaboration between actors engaged in research and extension activities

(output 2 and 3) and documenting them as formal knowledge at the end of the project (output 5), has proved to be successful. The FRG approach is officially recognised by MARC and ATARC, the core implementing organisations of the project.

3-2-3 Efficiency: The project purpose was fairly achieved, despite the change of counterpart.

Both Japanese and Ethiopian parties have completed their input, following planned quantity, quality and timing. Although the change of counterpart was a detriment to smooth project operations to a certain extent, it did not affect the efficiency of the project implementation in general. On the other hand, the project members had difficulties in conducting monitoring and follow-up actions to cover all the technology development activities. With regard to this point, the project team's capacity should have been assessed to determine the number of research activities that its members would be able to handle.

3-2-4 Impact: Various positive impacts of the project were confirmed.

As positive impacts of the project, the evaluation mission confirmed improvement of the livelihood among the target FRG farmers and manifestation of interests in scale-up of the FRG approach such as information and experience sharing with agricultural research centres in other regions. No negative impact of the project was observed by the mission.

3-2-5 Sustainability

(1) Financial Aspect

To date, the Ethiopian government has been bearing fuel and lighting costs of the project office, while the major part of expenses in research activities has been paid by Japan. After the termination of the project, those who are involved on the part of Ethiopia will need to obtain funds to cover all those expenses by their own efforts. Meanwhile, it is expected the impact of the project will have further developments given that the Rural Capacity Building Project (RCBP), a Ministry of Agriculture and Rural Development of Ethiopia (MoARD)/World Bank project, has incorporated scaling up of the FRG approach to the national level into its plan, and also that the project impacts are well-recognised among agricultural research centres and farmers.

(2) Organisational Aspect

Working on researches in an interdisciplinary team based on farmers' initiative, which is the main element of the FRG approach, is included in the principle of the ongoing Ethiopian public sector reform (Business Process Reengineering: BPR). Accordingly, there is an opportunity for future support of the continuity and further development of the FRG approach.

(3) Technical Aspect

The project members have clear understanding of the FRG approach. Researchers who have not been involved directly in the project also acknowledge the advantage of FRG approach and started adopting it in their activities. Therefore, it is considered that the FRG approach will continue to be applied by MARC and ATRAC.

3-3 Factors Contributed to Positive Impacts

- (1) The four implementing organisations of the Ethiopian government (EIAR, OARI, MARC, ATARC), while sharing good understanding of roles to be undertaken by each of them, have regarded the “participatory research activities” as a common ground for their collaboration. This established a core basis for long-term commitment and motivation among them, which largely contributed to the positive project impacts.
- (2) In this project, each farmer was allowed to determine the level of his/her commitment to the activities depending on his/her interest, for example, by opting between the position as a FRG member to participate in technology development activities and that as a non-FRG farmer to learn developed technologies afterward. A clear statement on these options in the method of extension also contributed favourably to the project impacts.

3-4 Problems, Their Causes and Background Factors

- (1) There was a certain limitation in fundamental research skills among researchers, which caused difficulties in preparation of research plans and collection of experimental data. As the project had to begin with development of such skills, the start of activities for establishment of the FRG approach was delayed.
- (2) Frequent change of DA members affected the advancement of FRG activities and collaboration among relevant actors.

3-5 Conclusion

- (1) The present project corresponds to the policies of the government of Ethiopia as well as the ODA policies of Japan.
- (2) All input was completed as planned and the Project Purpose is considered to be achieved for the most part by the end of cooperation period. Positive impacts are observed as a result of the project. As for the financial sustainability of the project products, however, the Ethiopian government will need to increase its commitment.
- (3) In light of the above, as a conclusion of the evaluation, July, 2009 is considered to be an appropriate timing for the termination of this project as originally planned.

3-6 Recommendations

- (1) Assignment of a person in charge of the FRG activities.
To ensure initiatives for the continuity of FRG activities, each research organisation should nominate a person in charge of the FRG approach and activities.
- (2) Assignment of budget resources for the FRG activities on behalf of the government of Ethiopia.
Each corresponding research organisation should allocate a part of its currently/newly approved budget for the FRG activities.
- (3) Market-oriented FRG activities.
Given that the market prices of agricultural commodities are variable, it is necessary to pay constant attention to the market during the technology development process.
- (4) Reprint and distribution of extension materials financed by the government of Ethiopia.
Since the extension materials produced in the project were highly appreciated by the project-related research organisations, a budget for their reprinting and distribution should be arranged.
- (5) Clarification of similarities and difference between the concepts of JICA's "Farmer Research Group" and the World Bank's "Farmer Research Extension Group".
It is suggested that the government of Ethiopia should work on unification of the terminologies and clarification of concepts used in the projects supported by the above-mentioned two donors to avoid unnecessary confusion.

3-7 Lessons Learned

This project, in which JICA's counterpart organisations are those specialised in research activities, include components of extension for its outputs. As it is desirable that the research activities are conducted in coordination with extension activities, the project's technology development has incorporated perspectives on the extension components. Meanwhile, among the project's partner organisations, there were ones exclusively engaged in extension activities and there was a certain limitation in sharing the same understanding of the linkage between the components of "research" and "extension" among those actors throughout the project implementation processes. Such understanding should have been solidly constructed and shared among the relevant actors of both "research" and "extension" components at the early stage of the project.