

Terminal Evaluation

1. Outline of the Project		
Country:	Islamic Republic of Afghanistan	Project Name: The Improvement of Rice-Based Agriculture in Nangarhar Province
Sector:	Agriculture Development	Cooperation Scheme: Technical Cooperation Project
Division in Charge:	Paddy Field Based Farming Group, Rural Development Department	Total Cost (at the time of Evaluation study) : 310 million yen
Period of Cooperation:	Aug 2007 - Mar 2011	C/P Agency: Ministry of Agriculture, Irrigation and Livestock (MAIL)
		Cooperating Agencies of Japanese Side: -

1-1 Background and outline of the Project

In Afghanistan, approximately 80% of the population is engaged in agriculture, and most of them live in the rural area. 31% of its GDP is produced by the agriculture sector and two-thirds of the labor is dedicated to this sector.

Reconstruction and sustainable development of agriculture is the most important issue in order to promote the stable recovery of its national economy and society. In May 2008, Afghanistan National Development Strategy (2008-2013:ANDS) was established and one of the key targets of its strategy was a sector of Agriculture. Therefore, many international stakeholders have carried out several projects for the rural development. However, over 20 years of conflict disturbance, agricultural facilities and its supporting system have been destroyed and it affected agricultural productivity of Afghanistan in both of quality and quantity as a consequence (National average: 2.5t/ha - 3.5t/ha). Moreover, due to the climate change, natural disasters such as droughts or floods have occurred frequently. These negative impacts have caused decrease in the productivity of agriculture and Afghanistan has been forced to import main crops such as wheat and rice.

Consumption of rice, as the second major crop in the country, has been increasing these last decades. However, its quality and productivity is so low and the 100,000 tons of rice (a quarter of domestic consumption) are imported every year.

To address these issues, the Government of Afghanistan requested the Government of Japan a technical cooperation project for agricultural development through improvement of productivity and quality of rice in Nangarhar Province.

“The Improvement of Rice-based Agriculture in Nangarhar Province (hereinafter referred to as "the Project")” commenced on Sep 2007 for the 3.5 year period.

1-2 Project Overview

The Project aims at improvement of agricultural productivity especially rice through enhancement of research and extension activities. The Project Outputs are 1) enhancement of capacity of research in Sheshambagh Agricultural Experiment Station, 2) activation of function of agriculture extension system and 3) promotion of collaboration between research and extension work. And those outputs lead to achieve the project purpose that rice cultivation techniques are improved, and those techniques are used in extension work.

(1) Overall Goal

Productivity of agricultural produce, with an emphasis on rice, in Nangarhar province is increased.

(2) Project Purpose

Rice cultivation techniques suitable for the climate condition of the target area are improved, and those techniques are used in extension work.

(3) Outputs

- 1) Capacity of research in Shishambagh Agricultural Experiment Station (SAES) is enhanced.
- 2) Function of agriculture extension system is activated.
- 3) Collaboration between research and extension work is promoted.

(4) Inputs (As of the end of November in 2010)

Japanese side: Total inputs cost : 310 million yen

- Long term experts: 3 persons
- Short term experts: 5 persons (total 108.8MM)
- Local Cost: 62.2 million yen
- Equipment: 24.8 million yen
- Training in Japan: 8 persons

Afghanistan side :

- Counterpart Personnel: 39 persons
- Facility (office space for experts, utility cost included)

2. Terminal Evaluation Team

Members of Evaluation Team:	Leader: Mr. Yoshiaki KANO (Advisor, Rural Development Department, JICA) Agriculture Development: Dr. Jiro AIKAWA (Senior Advisor, JICA) Cooperation Planning: Mr. Shohei KASHIWAGI (Paddy field based farming area division 2, Rural Development Department, JICA) Rice Cultivation: Mr. Masato SAKO (Financial Department, Director General Affairs Department, NTC International Co., Ltd.) Evaluation and Analysis: Ms. Etsuko AKABANE (Senior Consultant, Consulting Division, JDS Co., Ltd.)
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Period of Evaluation:	23 Oct - 15 Nov, 2010	Type of Evaluation: Terminal Evaluation
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3. Results of Evaluation

3-1 Achievement of the Project

(1) Project Purpose

The possibility to achieve the Project Purpose is very high with considering the three indicators as follows.

(Indicator 1) Number of proposed techniques to solve problems of cultivation at the project termination

The Project has achieved to introduce a series of improved rice cultivation techniques, based on the experiment and trial cultivation at the SAES.

The series of improved rice cultivation techniques including individual methods such as seed selection and pre-treatment, preparation of water nursery bed and seeding, preparation of the paddy field, line transplanting, weeding by hand-made push weeder, timing of nitrogen (N) topdressing, insect and disease, water management, growth observation and recording, and harvesting and yield analyses.

(Indicator 2) Percentage of farmers who are satisfied with extension services among those who are provided with the services at the project termination.

Farmers who work at the demo farms as well as their neighboring farmers showed a high degree of interests and appreciation for the techniques introduced by the project. 80% to 100% of interviewed farmers answered that each technique provided by the project is very important for rice cultivation.

(Indicator 3) Relationship between the techniques studied through research activities, and the techniques introduced for extension, especially the number of the techniques proposed at the demo farms

In the Research Report in 2009, almost all techniques are undertaken at the demo farm level. It is appreciated that the coordination between research and extension has been promoted.

(2) Outputs

1) Output 1

Output 1 is almost achieved at the time of Terminal Evaluation judging from the present situation of each indicator.

1.1 Contents of research activities and number of meetings in SAES.

C/Ps conducted various research activities with Japanese experts and published a research report every year since 2008. Also the Project held the workshop in April 2009 and 2010. C/Ps had good opportunities to make presentation of their research activities and results at the workshops.

1.2 Frequency of research report publication.

The Project published a research report every year since 2008. These reports are written in English, then, translated to Pashto by the RIP/ SAES Library Publication Committee who consists of 3 C/Ps at the SAES.

1.3 Accuracy in research work.

The Project has guided its C/Ps method of data collection (statistically reliable methods using the experiment field layouts, sampling, data analysis, etc.) and other basic research methodologies. This attitude of the respect of the fundamental theories and practices has been helped the C/Ps for gaining accurate techniques for research. The maximization of opportunities to participate training course in Japan and opportunities of teaching by the short term experts also well combined with the long term experts' guidance.

The Project had a trial cultivation of rice types differentiated by maturity (early, medium, and late), and also the location of cultivation (mountain and lower areas). The results are taken into the cultivation calendars.

Through these activities the suitable varieties and the ways of cultivation are determined, and then standardized for extension of the techniques that can be compatible with the environment.

2) Output 2

Output 2 is almost achieved at the time of the Terminal Evaluation by judging its achievement of the following indicator.

* The indicator for output 2 was originally as follow: “ Number of extension staffs who pass the technical examinations”. However, due to its implementation time of the exam, mission could not identify its result of the examinations. This is why the evaluation mission established the alternative indicator in order to judge its possibility of achievement for output 2.

[Alternative Indicator] Improvement of Technical Capacity for Extension

The project has conducted technical trainings 6 times a year for extension officers at the SAES.

The Japanese experts consider that the technical level of extension officers is greatly improved and acquired enough knowledge for guiding demo farmers, judged through the communication such as their reporting about the activities in the demo farms at the meetings and on phone, and their explanation on the photos taken as records.

3) Output 3

Possibility for achievement of output 3 is high at the time of Terminal Evaluation.

3.1 Collaborative activity contents and number of meeting through research and extension activities in the RIP

The Project has provided the opportunities of collaboration between research section and extension section.

The meetings for monitoring and evaluation of demo farm activities held with staff members of the Extension Department of the DoA who were at the position to advise the extension officers at the district level.

The activities and meetings that might enhance the collaboration between research section and extension section can be found as follows;

- Workshops on Baseline Survey: two (2) times (January and May, 2008),
- Series of Training for Improved Techniques for Rice Cultivation: A series consists of 6 times a year,
- Research Presentation and Evaluation: three (3) times (November since 2008).

3.2 Number and quality of extension tools developed.

The series of the instruction paper for rice cultivation techniques with more than ten volumes have been re-edited and published. The series were all translated into Pashto. More than ten of reference documents on cultivation and on extension were also published. The documents have been used at the training for researchers at the SAES and for extension officers.

3-2 Summary of Evaluation

(1) Relevance (high)

In Afghanistan, approximately 80% of the population is engaged in agriculture, and most of them live in the rural area. Reconstruction and sustainable development of agriculture is the most important issue in order to promote the stable recovery of its national economy and society.

Rice is the second largest staple food after wheat. However, its quality and productivity is so low and the 100,000 tons of rice are imported every year. In addition to this, the price of domestic rice is still one-thirds of the imported rice. The introduction of the improved techniques of rice cultivation has been in accordance with the needs of farmers who desired to produce rice in high quality and yields.

The Project has provided good opportunities for capacity development to the researchers at SAES and to the extension officers in the eight districts in the province. During the evaluation survey, all the targeted researchers at the SAES noted the satisfaction of the help by the Project based on their own experience. The extension officers commented their appreciation of the techniques provided by the Project from the point of view of increases in yields, and the compatibility with farmers' needs. i

The National Agricultural Development Framework (hereinafter, NADF), composed in 2009 after the Afghanistan National Development Strategy (hereinafter, ANDS) in 2008, clearly notes that Agriculture Production and Productivity is one of the key program for the agricultural and rural development of the country. The project's aim for the improvement of production and productivity of rice is in line with the country's development strategy as well as with its agricultural policy.

(2) Effectiveness (high)

The Project's structure with three outputs; enhancement of research function, promotion of extension, and cooperation between research and extension, is quite logical to achieve the project purpose.

In addition, since none of the activities have been delayed by the time of terminal evaluation, it is possible to judge that the effectiveness of the Project is "high".

(3) Efficiency (high)

The Project's inputs (Japanese experts, equipment, facilities and training) from the Japanese side were well managed in good timing. All equipment and facilities are highly needed and well used.

Procurement in good timing and appropriate manners were all the results of the efforts taken by both the Japanese and Afghan sides. While the mobility of the Japanese experts was very limited, the C/Ps who worked closely with the experts helped the purchase and procurement at the practical levels.

(4) Impact (high)

At the beginning, the Project aimed at capacity development of researchers and extension officers in the Nangarhar province. However, the high appreciation of the techniques introduced by the project brought to implementing the training for other five provinces in the Eastern and North-Eastern regions. This situation shows possibilities of further extension of techniques and their impacts to spread out from the target areas.

The Indicator for the Overall Goal is "Rice yield is increased by 30 % in Nangarhar province within five years after the project termination. (Rice yield of 4.5 tons per hectare in Nangarhar province was approved as base in the third JCC Meeting)".

The Project consider that this Overall Goal will be achieved by March 2016, five years later of the project termination. This expectation is based on the result of yields survey, equivalent to 7 to 9 or sometimes more than 10 ton per hector, at the demo farms in 2010.

It is considered that the appropriate techniques without great scale machinery may not cause any severe conflicts, neither negative impact.

It is considered that the introduction of appropriate techniques did not cause any severe conflicts, neither negative impact to the target and neighboring areas.

(5) Sustainability (medium)

The team of the Japanese experts has been considering the involvement of the Afghan Counter Parts as vital and the most important for sustainability. The team has shown the emphasis of the partnership between research and extension, recognition of process of step by step, and also the respects of the Afghan side's initiatives and the cultural and social contexts.

Responding to the Japanese experts' attitudes, the Afghan Counterparts have developed their ownership to the Project, by contributing for the presentation at the research report meeting, working hard, and teaching at the workshop-like training for researchers and extension officers in other five provinces.

The Project has achieved to propose appropriate techniques that are mostly affordable for usual farmers. Without using large scale machineries and heavy inputs, even small scale farmers can practice the techniques. The introduced techniques and the use of demo farms may assist the more dissemination of the improved rice cultivation techniques to neighboring areas in future.

3-3 Factors contributing to project progress

(1) Factors related to planning: Non

(2) Factors related to implementation process

The Project has respected the initiatives of the C/Ps and implemented activities with their full contribution. This situation was promoted in the actual situation of the limited mobility of the Japanese experts. The C/Ps of both, research and extension, were the key actors for practical activities of the Project. This situation encouraged the promotion of approaches based on the Capacity Development in which one respects policy, social and administrative system.

The Project has been expanded its number of exhibition field and target C/Ps step by step. This process made positive environment to produce the ideal results to achieve the project goal.

3-4 Issues/possible factors affecting project progress

(1) Issues/factors related to planning: Non

(2) Issues/factors related to implementation process

The Project has been suffered by the impact of bad weather or security issues. However, the Project always tried to be flexible against any emerging circumstances and realize each activity by implementing alternative ones. This could be achieved only by its trust relationship between C/Ps and Experts and these flexible change plans made possible to enhance their capacity of the C/Ps.

3-5 Conclusion

The Project has been successfully implemented and the indicators in PDM were confirmed that most of them have already achieved. Any problems that might possible to give negative influence on the accomplishment of the project were not found. Therefore, the evaluation team concludes that this project should be terminated at the end of March in 2011, same as the original schedule.

3-6 Recommendations

(1) Short-Term Issue (by the termination of Project)

- 1) Completion of activities planned in PDM
- 2) Publication and distribution of research report 2010
- 3) To conduct the RIP final workshop
- 4) Compilation of final monitoring report and reflect its result to the extension tools
- 5) To develop and finalize a guidebook for extension workers and extension tools
- 6) To establish a database on research methods and results
- 7) To assist making research and extension plan for the year of 2011
- 8) Consideration on registration of the selected varieties

(2) Long/Mid-term Issue (after project termination)

- 1) Market oriented approach is required to compete with imported rice and benefit farmers in the country. There might be many technical issues or solutions such as seed selection, multiplication and breeding, post harvesting technologies, machinery, etc. However, it should be prioritized by feasibility and cost-benefit.
- 2) Development of effective extension approach is needed to ensure increase of beneficiaries because of the limitation of the extension officers.
- 3) Scaling up the achievement in Nangarhar and the other areas can contribute the country to increase the rice production.

3-7 Lessons Learned

(1) Respect the society

The Project has shown to the respects to the society where it works in. For example, demo farms were selected through the consultation with the village chiefs. In this way, it minimized possible conflict with the local society.

(2) Importance of ownership in Afghanistan

The Japanese experts have been keen to encourage their C/Ps for responsibility and roles in the research and extension activities. They paid attention to let the C/Ps feel motivated to the activities through presentation, report writing and others. They also sincerely responded to the requests made by the Afghan Side.

The Project has provided the opportunities of collaboration between research and extension sectors. The meetings for reporting and monitoring and evaluation of demo farm activities have invited staff members of the Extension Department of the DoA who are at the position to advise the extension officers at the district level.

The raised ownership of the C/Ps, as the preferable side effect of the Project, has been one of the main factors of the success of the Project as well as the capacity development of the C/Ps.

(3) Step by step approach

In the Project, the researchers were at first targeted in the training at the SAES. Then a few of them shifted to lecturers in order to provide the training for extension officers. Then, those trained extension officers worked with demo farmers.

In this way, the Project has gradually increased the number of demo farmers with high quality.