Internal Ex-Post Evaluation for Technical Cooperation Project

conducted by Laos Office: March 2016

Country Name	Rice Seed Multiplication and Distribution System Improvement Project
Lao People's Democratic Republic	

I. Project Outline

Background	Although rice was the single most important crop for Lao People's Democratic Republic (Lao PDR), rice self-sufficiency had yet to be achieved in some parts of the country. The Government of Lao PDR targeted an increase in the production of high quality rice seed, together with a strengthening of its extension activities. The Ministry of Agriculture and Forestry (MAF) had already succeeded in developing a high quality improved rice plant at the National Agriculture and Forestry Research Institute (NAFRI). However, there was no administrative system for rice seed multiplication and distribution and the Seed Multiplication Stations/Centers (SMSs/SMCs) were unable to estimate rice seed demand levels nor create seed production and distribution plans. In Lao PDR, seed production is structured as follows: foundation seeds (R1) are produced by NAFRI, stock (registered) seeds (R2) are produced at the provincial level, and extension (certified) seeds (R3) at SMSs/SMCs and by R3 producing farmers. However, the quality and quantity of rice seed produced at the local level was low, with the technical capacity of seed centers and registered farmers to dry and filter rice seed being inadequate.
Objectives of the Project	Through (i) establishing a management system for rice seed multiplication and distribution at each of central and provincial level, (ii) improving the quality of R1, (iii) strengthening the training capacity, (iv), improving multiplication of R2/R3 and strengthening the market skills at SMSs/SMCs, and (v) and organizing seed production farmers groups and strengthening their capacity, the project aimed at establishing a rice seed multiplication and distribution system that is appropriate for local conditions in 3 target provinces, and thereby contributing to enabling farmers to use quality rice seed in 3 target provinces. The project objectives set forth are as follows: 1. Overall Goal: Quality rice seed is widely used by farmers in 3 target provinces. 2. Project Purpose : A rice seed multiplication and distribution system that is appropriate for local conditions is established in 3 target provinces.
Activities of the Project	1. Project site: Vientiane City, Vientiane Province, Luang Namtha Province 2. Main activities: (1) At the central level, the project establishes a management system for rice seed multiplication and distribution. (2) At the provincial level, the project establishes a management system for rice seed multiplication and distribution in accordance with the provincial plan formulated under the project. (3) The projects improve the quality of foundation seed (R1). (4) The project strengthens the capacity of Naphok Seed Multiplication Station (N-SMS, under Rice and Commodity Crop Research Center (RCCRC) under NAFRI) to transfer techniques to other SMSs/SMCs. (5) The project improves multiplication of stock (registered)/extension (certified) seed) (R2/R3) and also strengthens the marketing skills at Nongheo Seed Multiplication Center (No-SMC), Pakcheng Agriculture Station (PAS) and Luang Namtha Agriculture Forestry Research Center (LAFRC), and (6) The project organizes seed production farmers groups and helps Provincial Agriculture and Forestry Office (PAFO)/District Agriculture and Forestry Office (DAFO)/SMCs provide technical guidance to farmers groups. 3. Inputs (to carry out above activities) Japanese Side 1. Experts: 8 persons 2. Training in Japan: 12 persons, Third country training: 61 persons 3. Facilities and equipment: Improvement/construction of drying floors and workshops at five project sites and others Lao Side 1. Staff allocated: 16 persons 2. Land and facilities: Land, building, facilities, offices, facilities improvement for target SMSs/SMCs and equipment 3. Local cost: travelling allowance for staff, providing official vehicles for travelling, utility fees for office, cost to produce seeds, advertisement for distribution activities, etc.

Ex-Ante Evaluation	2006	Project Period	August 2006 – July 2011	Project Cost	350 million yen
Implementing Agency	National Agriculture and Forestry Extension Services (NAFES) (currently Department of Agriculture Extension and Cooperative: DAEC)				
Cooperation Agency in Japan	Ministry of Agriculture, Forestry and Fisheries				

II. Result of the Evaluation

1 Relevance

<Consistency with the Development Policy of Lao PDR at the time of ex-ante and project completion>

The project was consistent with Lao development policy as the 6th Agriculture and Forestry Developing Plan (2006-2010) and the 7th Agriculture and Forestry Developing Plan (2011-2015) regard food security as the priority issue. Especially, the 6th Agriculture and Forestry Developing Plan aimed at increasing rice production to 3 million tons nationally by 2010 through extension of improved rice seed.

<Consistency with the Development Needs of Lao PDR at the time of ex-ante and project completion>

The project was consistent with the needs for improvement of rice seed and ensuring food security as there was no administration system for rice seed multiplication and distribution, and Lao PDR relied more on the imported rice at the time of project completion.

<Consistency with Japan's ODA Policy at the time of ex-ante evaluation>

The project was consistent with Japan's ODA policy, as food security was to be supported under one of the prioritized areas of Country

Assistance Program to Lao PDR which was drawn up in 2006.
<Evaluation Result> In light of the above, the relevance of the project is high.

2 Effectiveness/Impact

<Status of Achievement for Project Purpose at the time of Project Completion>

The project purpose was achieved by the time of project completion. An appropriate flow of seed production was established in each target province (indicator 1), all target stations/centers were able to estimate, produce and distribute the necessary amount of extension seeds (indicator 2), DAFO, PAFO and NAFES (DAEC) were able to estimate seed renewal rate in the target districts (indicator 3), and R2/R3 production in 2010 exceeded the plan (indicator 4).

<Continuation Status of Project Effects at the time of Ex-post Evaluation>

After the project completion, rice seed multiplication and distribution system have been appropriate for local condition. All target provinces have an appropriate flow of seed production, and seed produced by the SMSs /SMCs has met the demand and quality standards. The annual amount of R2/R3 seed has exceeded the target. These outcomes are produced partly because the production is made in accordance with the provincial plan of rice seed multiplication and distribution and bi-annual plan renewed at the end of cropping season as the project envisaged. In addition, NAFES (DAEC) and RCCRC (currently Agriculture Research Center: ARC) have continued transfer of seed multiplication and extension to SMSs/SMCs and farmer groups through implementing training courses. On the part of seed producing farmers groups, the groups in Vientiane Capital and Luang Namtha Province have continued while the number of farmers groups has decreased in Vientiane Province. The farmers groups ceased operation because they were not able to sell the R3 seed well as the ordinary farmers do not have confidence to use the seed produced by seed farmers due to its quality. In the meantime, Vientiane province plans to provide the technical training to seed farmers to ensure that they follow technical guidance.

<Status of Achievement for Overall Goal at the time of Ex-post Evaluation>

The overall goal was achieved at the time of ex-post evaluation. Percentage of rice production field areas which use the R3 recommended by PAFO has remarkably increased in recent years because of its quality and accessibility to the R3.

<Other Impacts at the time of Ex-post evaluation>

Positive impacts were observed. First, the private sector's involvement in the national seed multiplication and distribution system has evolved. The government has promoted the private sectors to start production of certified rice seed (R3) by lending no-interest loan. Second, since more quality rice seeds were used for cultivation resulting in higher production, food security was achieved in the target provinces, according to MAF. As to the expansion of the project to other areas of the country, NAFES (DAEC) has enhanced the capacity of the personnel in other provinces by providing training especially on technique on rice seed multiplication and distribution system and technique on rice yield improvement by using R3. However, the direct expansion of the multiplication and distribution system established under the project, which was expected to be implemented with the fund of other development partners, was not actually carried out.

No land acquisition and resettlement occurred under this project, and no negative impacts on natural environment were observed.

<Evaluation Result>

The project achieved its project purpose as the appropriate flow of seed production was established in each target province, and the R2/R3 production achieved the targets. The situation has continued after the project completion. The overall goal was also achieved as the rice production field areas which use the R3 recommended by PAFO have exceeded the targets. Therefore, effectiveness/impact of the project is high.

Achievement of Project Purpose and Overall Goal

<table>
<tr><th>Aim</th><th>Indicators</th><th>Results</th></tr>
<tr><td rowspan="4">(Project Purpose)
A rice seed multiplication and distribution system that is appropriate for local conditions is established in 3 target provinces.</td><td>1. An appropriate flow of seed production from the foundation seed to the extension (certified) seed is established in each target province.</td><td><u>Status of achievement: Achieved at the project completion</u>
(Project Completion) All official, staff and farmers, met by the terminal evaluation team understand the system of R1, R2 and R3 production, and an appropriate flow of seed production has been established in each target province.
(Ex-post Evaluation) The appropriate flow of seed production has continued.</td></tr>
<tr><td>2. Target Stations/Centers can ascertain the demand of extension (certified) seed in the target areas, as well as produce and distribute the necessary amount of extension (certified) seed.</td><td><u>Status of achievement: Achieved at the project completion</u>
(Project Completion) All target stations/centers can ascertain, produce and distribute the necessary amount of extension seeds.
(Ex-post Evaluation) The target stations/centers has produced and distributed the necessary amount of extension seeds.</td></tr>
<tr><td>3. Seed Renewal Rate in the target districts and provinces is estimated by DAFO, PAFO and NAFES.</td><td><u>Status of achievement: Achieved at the project completion</u>
(Project Completion) DAFO, PAFO and NAFES (DAEC) can estimate Seed Renewal Rate in the target districts.
(Ex-post Evaluation) The Seed Renewal Rate in the target districts and provinces has been estimated by DAFO, PAFO and NAFES (DAEC) after project completion and the rate has increased yearly.</td></tr>
<tr><td>4. Annual amount of distribution of stock (registered)/extension (certified) seed organized from the project amounts to more than 230 tons/year. Details are 140/year in the flow from N-SMS and</td><td><u>Status of achievement: Achieved at the time of project completion</u>
(Project Completion) R2/R3 production in 2010 exceeded the plan.
(Ex-post evaluation) R2/R3 production is in line with the plan.
R2/R3 production (Unit: tons):
<table>
<tr><th></th><th>2010</th><th>2011</th><th>2012</th><th>2013</th><th>2014</th></tr>
<tr><td>N-SMS</td><td rowspan="2">168</td><td>NA</td><td>199</td><td>160</td><td>210</td></tr>
<tr><td>No-SMC</td><td>35</td><td>38</td><td>40</td><td>42</td></tr>
<tr><td>PAS*</td><td>290</td><td>60</td><td>60</td><td>60</td><td>60</td></tr>
</table></td></tr>
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	No-SMC, 60 tons in the flow from PAS, and 30 tons in the flow from LAFRC.	LAFRC 33 45 50 50 60 TOTAL 491 140 347 310 372 * The production amount of PAS increased in 2010 because of an emergency response to natural disaster and seed for new settlement areas. Since then PAS maintains its distribution at 60 tones.
(Overall Goal) Quality rice seed is widely used by farmers in 3 target provinces.	1. More than 10 % of rice production field areas in the target provinces use the extension (certified) seed that has been recommended by PAFO.	Status of achievement: Achieved (Ex-post Evaluation) The percentage of the rice production field areas has achieved the target. **Percentage of rice production field areas which uses the R3 recommended by PAFO**

	Total rice production field areas	Actual rice production areas which used R3 recommended by PAFO (Percentage against total rice production areas)		
		2012	2013	2014
Vientiane Capital	55,000ha	19,250ha (35%)	22,000ha (40%)	24,750ha (45%)
Vientiane Province	58,643ha	29,320ha (50%)	35,185ha (60%)	35,185ha (60%)
Luang Namtha Province	12,400ha	992ha (8%)	1,327ha (11%)	1,823ha (15%)

	2. Farmers can access extension (certified) seed in all districts in target provinces.	Status of achievement: Achieved (Ex-post Evaluation) Farmers in neighboring districts in target provinces are able to access to R3 because several rice seed sale points were established by the SMCs, SMSs in villages and other places and also by communicating channel from PAFO to DAFO to village to individual farmers.

Source：JICA internal documents, questionnaire survey and interviews with No-SMS, PAS, LAFRC, NAFRI, PAFO and MAF.

3 Efficiency

Although the project period was as planned (ratio against the plan: 100%), the project cost slightly exceeded the plan (ratio against the plan: 106%). Therefore, efficiency of the project is fair .

4 Sustainability

<Policy Aspect>

The 7th Agriculture and Forestry Development Plan (2011-2015) is being implemented and the 8th Agriculture and Forestry Development Plan (2016 - 2020) is drafted and will be approved by National Assembly by the end of 2015. Both documents target food security which supports the effects of the project to continue.

<Institutional Aspect>

The roles and responsibilities of the organizations which are in charge of rice seed multiplication and distribution remain unchanged. NAFES (DAEC) is responsible for nationwide seed multiplication and distribution and NAFRI is in charge of seed quality control. RCCRC (ARC) under NAFRI is responsible for producing R1 and quality inspection work for rice seed multiplication in whole country, SMSs/SMCs producing R2 and R3 and supporting R3 production by farmer groups. These responsibilities are clearly demarcated and well-functioning. Although the number of staff at each organization is generally increasing, the number of qualified staff is still limited.

<Technical Aspect>

Many government staff has been trained under the project as well as after the project completion and technical manual on R2/R3 have been utilized. Nevertheless, PAFO/DAFO and SMSs/SMCs staff still has some limitation of sufficient techniques to undertake their duties. Training for newly recruited staff, refresher courses and training of farmers have not been carried out regularly.

<Financial Aspect>

The government allocated the fund to SMSs/SMCs for rice seed production for food security purpose only in the year 2012. Approximately 500 million kip was distributed for each SMS/SMC. To sustain the rice multiplication and distribution system, all SMSs/SMCs have to find the way to generate income to enable them to produce the seed at least at demand level. In the meantime, the interviews with MAF and the Department of Planning of the Ministry of Planning and Investment revealed that the Government of Laos will allocate 30 billion kip as part of Food Security Fund to implement food security and commercial activities, which include quality seed production.

<Evaluation Result> Problems have been observed in terms of institutional, technical and financial aspects of the organizations in charge of seed multiplication and distribution, and therefore, sustainability of effects of the project is fair.

5 Summary of the Evaluation

The project achieved its project purpose as the appropriate flow of seed production was established in each target province, and the R2/R3 production achieved the targets. The situation has continued after the project completion. The overall goal was also achieved as the rice production field areas which use R3 recommended by PAFO have exceeded the targets. As for sustainability, there are challenges in terms of institutional, technical and financial aspects such as insufficient manpower, training and budget, however, the policy aspect supports the effects of the project to continue. As for efficiency, the project cost exceeded the plan.

In light of the above, this project is evaluated to be satisfactory.

III. Recommendations & Lessons Learned

<Recommendations for Implementing Agency>

Food security and commercial production remain a high priority of government and quality seed is basic foundation for ensuring food production, however, the budget for quality seed production is not sufficient, therefore, it is requested NAFES (DAEC) to provide support to No-SMC, PAS and LAFRC in preparing production and marketing plans enabling them to generate income to ensure rice seed

multiplication center could produce enough quality seed sustainably.
<Lessons Learned for JICA>
1. In this project, it was found that the certified seed (R3) produced by farmers groups were not popular among ordinary farmers due to its quality and therefore, JICA could have provided intensive technical support for farmers groups including marketing and access to finance to ensure that they have capacity in producing quality rice seed before the project termination.
2. It was also found that NAFES (DAEC) has not been successful to expand the rice seed multiplication and distribution system established by the project to other provinces, therefore, to ensure system to be expanded to other provinces, JICA could have created an expansion strategy with NAFES (DAEC) before the project termination.

Rice Seed Storage in Vientiane province

Processing facility of Certified seed (R3) in Luangnamtha Agriculture Research Center