

## Summary of the Evaluation

1. Outline of the Project		
Country Name: Lao People's Democratic Republic		Project title: Rice Seed Multiplication and Distribution System Improvement Project
Sector: Agriculture / Agriculture Development		Cooperation Scheme: Technical Cooperation Project
Division in charge: Laos Office		Total cost to date: Approx 330 million JPY
Period of Cooperation	August 2006 – July 2011	Partner Organization: National Agriculture and Forestry Extension Services (NAFES) Participation Organizations: National Agriculture and Forestry Research Institute (NAFRI) and Department of Agriculture (DOA) Implementing Organizations: RCCRC/N-SMS PAFO/DAFO (Vientiane City, Vientiane Province, Luang Namtha Province), and SMS/SMCs (PAS, LAFRC, No-SMC)
		Supporting organization in Japan: Ministry of Agriculture, Forestry and Fisheries
		Other related organizations:
<p>1-1 Background of the Project</p> <p>Although rice is the single most important crop for Lao, rice self-sufficiency has yet to be achieved in some parts of the country. The Government of Lao targeted an increase in the production of high quality rice seed, together with a strengthening of its extension activities, with the aim of increasing rice yields and incomes for farmers.</p> <p>The Ministry of Agriculture and Forestry (MAF) had already succeeded in developing a high quality improved rice plant (increased yields, resistant to disease and improved taste) at the National Agriculture and Forestry Research Institute (NAFRI) in collaboration with the International Rice Research Institute (IRRI). However, there was no administrative system for rice seed multiplication and distribution and the Seed Multiplication Stations/Centers (SMSs/SMCs) were unable to ascertain rice seed demand levels nor create seed production and distribution plans. In Lao, seed production is structured so that, R1 seeds are produced by NAFRI, R2 seeds are produced at the provincial level, and R3 seeds at seed centers 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.</p> <p>Three major challenges had been identified, and the Rice Seed Multiplication and Distribution System Improvement Project commenced its activities from August 2006 to establish a management system for rice seed multiplication and distribution, to improve the technical capacity for rice seed production and filtering at seed centers, and to establish an extension system for local farmers.</p> <p>1-2 Project Overview</p> <p>(1) Project purpose: A rice seed multiplication and distribution system that is appropriate for local conditions is established in 3 target provinces.</p> <p>(2) Overall goal: Quality rice seed is widely used by farmers in 3 target provinces.</p> <p>(3) Outputs</p> <ol style="list-style-type: none"> <li>1. A management system for rice seed multiplication and distribution is established at the central level.</li> <li>2. A management system for rice seed multiplication and distribution is established in target provinces.</li> <li>3. The production of foundation seed is improved in RRU in RCCRC and LAFRC.</li> <li>4. The function of the N-SMS is strengthened to transfer knowledge and skills to SMCs.</li> <li>5. Multiplication and distribution of stock (registered)/extension (certified) seed are improved in No-SMC, PAS and LAFRC.</li> <li>6. Multiplication and distribution of extension(certified) seed is verified at the farmer level.</li> </ol> <p>(4) Inputs to date</p> <p>Japanese side:</p> <p>Long-term experts: 2 persons                      Equipment: 55,060,000JPY</p> <p>Short-term experts: 6 persons 9 times      Local cost including facility improvement: 52,789,000JPY</p> <p>Trainings (In Japan: 3 courses 12 persons in total, In third countries (Thailand) 3 courses 41 persons in total, (Vietnam) 2 courses 20 persons in total)</p>		

<p>Lao side:  Assignment of counterparts: 16 persons                      Land, building, facilities, offices  Facilities improvement for target SMS/SMCs and equipment  Local cost: travelling allowance for staff, providing official vehicles for travelling, utility fees for office, cost to produce seeds, advertisement for distribution activities, etc.</p>		
<p>2. Evaluation Team</p>		
<p>Evaluation Team</p>	<p>Numbers of Japanese evaluation team: 5</p> <p>1) Leader                      Shunichi NAKADA</p> <p>2) Rice Seed                      Chukichi KANEDA  Multiplication and Distribution</p> <p>3) Evaluation Planning 1      Tadashi KOTANI</p> <p>4) Evaluation Planning 2      Viengsavanh  SISOMBATH</p> <p>5) Evaluation Analysis      Atsuko ORIMOTO</p>	<p>Senior Advisor to the Director General, Rural Development Department, JICA</p> <p>Technical Advisor, Japan Association for JAICAF</p> <p>Representative, JICA Laos Office</p> <p>Program Officer, JICA Laos Office</p> <p>Consultant, Japan Development Services Co., Ltd.</p>
<p>Period of Evaluation</p>	<p>21 February 2011 – 4 March 2011</p>	<p>Type of Evaluation : Terminal Evaluation</p>
<p>3. Result of Evaluation</p>		
<p>3-1 Examination of the project performance</p> <p>(1) Inputs  The Team confirmed that most of the inputs from Japanese side and Lao side were borne. Besides input from JICA and Lao Government, farmer groups also contributed to the necessary infrastructure and/or equipments.</p> <p>(2) Outputs  The Team confirmed that most of the outputs were fulfilled in accordance with the latest PDM (February 4, 2010). However, there are some indicators that might not be achieved within the Project duration due to the outside factors.</p> <p>(3) Achievement of the Project Purpose  &lt;Project Purpose&gt; A rice seed multiplication and distribution system that is appropriate for local conditions is established in 3 target provinces.  Since all the indicators have been fulfilled, the Team confirmed that the Project Purpose has been achieved.  <u>Indicator 1</u> An appropriate flow of seed production from the foundation seed to the extension (certified) seed is established in each target province.  <u>Indicator 2</u> 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.  <u>Indicator 3</u> Seed Renewal Rate in the target districts and provinces is estimated by DAFO, PAFO and NAFES.  <u>Indicator 4</u> Annual amount of distribution of stock (registered) / extension (certified) seed originated from the project amounts to more than 210 tons/year. Details are 120 tons/year in the flow from N-SMS and No-SMC, 60 tons in the flow from PAS, and 30 tons in the flow from LAFRC.</p> <p>(4) Prospect to achieve the overall goal  &lt;Overall Goal&gt; Quality rice seed is widely used by farmers in 3 target provinces.  Some impacts of the Project has started to emerge, and the Team consider the possibilities are high that the Project will achieve the overall goal within five to ten years after the completion of the project.  <u>Indicator 1</u> More than 10 % of rice production field areas in the target provinces use the extension (certified) seed that has been recommended by PAFO.  <u>Indicator 2</u> Farmers can access extension (certified) seed in all districts in targets provinces.</p> <p>3-2 Examination of the project implementation process</p> <p>(1) Activities  The Team confirmed that the Project conducted most of the activities in accordance with the PDM and the PO.</p> <p>(2) Methods of technical transfer  The Project provided a comprehensive technical package covering, not only rice seed multiplication and distribution techniques but also, management and administrative skills. There were combined activities with regard to technology transfers such as, trainings in-country, in Thailand and Vietnam, and in Japan, and also, OJT, seminars and workshops by long-term and short-term experts. No</p>		

problems were found in the methods used for technology transfers, and all activities in relation to technical transfers were highly regarded by all concerned C/Ps.

(3) Project management aspect

The Team confirmed that there was no problem in the project management. The Project established a steering committee to meet every two months to identify any problems in early stages. The Project submitted monthly report to NAFES, and the reports were circulated in concerned departments in MAF. Japanese experts and Lao C/Ps worked very closely.

(4) Project recognition

All the C/P organizations and target groups including farmers' groups had high recognition in regards to the Project. However, participation organizations, such as the Department of Agriculture (DOA) and NAFRI, pointed out the linkage among departments in the MAF has not yet to be enhanced.

(5) Factors influenced the effectiveness of the Project

Organizational changes occurred during the Project period, and these caused enhancement in the Naphok Seed Multiplication Station results to be somewhat limited. As the result, it created stronger relationship with NAFES, RCCRC, and PAFO/DAFO in the target area.

### 3-3 Summary of Evaluation Results (5 evaluation criteria)

(1) Relevance

The Project is highly relevant.

The Project is consistent with the Agriculture and Forestry Development Plan in 5 years, since one of the four targets is "Food Security" aiming to produce 3.3 million tons/year by year 2010.

The current Japanese Assistance Policy to Lao PDR, Rolling Plan for Lao PDR includes six priority areas, and one of them is "Developing Rural Regions and Sustainable Use of Forest Resources", and the Project is operating under the Food Security Program.

(2) Effectiveness

Although problems remain, the effectiveness of this Project is rated as high.

The Project Purpose and most of the outputs have been achieved. Since 2007, R3 seed producing farmers' groups have been organized in the target provinces, and R3 producing farmers reported that the ordinary farmers who purchased seed from them were happy to have increased yield and better quality rice. Since rice is the most important crop in Lao PDR and 80 % of the people are employed within the agriculture sector, having better yield and improved quality can make a significant impact on society as a whole.

Remaining issues: law, regulations & standard, National Seed Board & Secretariat, Inspection system, Distribution system of R3 including marketing, and Dissemination of cultivation techniques of improved varieties

(3) Efficiency

The efficiency of this Project is assessed as high.

The inputs including experts, equipment, facilities, and trainings, were adequate in terms of amount, quality and timing.

It was reported that most of the facilities, equipment and office supply were utilized effectively. However, Japanese supplied incubators had broken down after only a few weeks of operation, due to the unstable electric current in Lao PDR, even though all the machines utilize transformers. The Project subsequently installed heat bulbs so that the machines were still usable, nonetheless, it would be desirable to arrange special contract guarantees, when purchasing such precision equipment.

The Project examined and practiced alternative methods to achieve more with the same cost. With regarding to JICA training courses, NAFES and JICA agreed to modify some of the training courses to the third countries such as Thailand and Vietnam. Regarding to separator and winnowers, The Project undertook a trial of Lao companies producing similar products, and was successful in identifying a local supplier within Lao, capable of providing similar equipment at a considerably lower cost.

(4) Impact

The Project is likely to achieve some positive impacts

i) Direct impacts

- The Project added a target institution (Nongheo Seed Multiplication Center), and increased the target amount of distribution of R2 and R3 seeds in the latest PDM.

- R3 producing farmers' groups have already sold R3 seeds to farmers from other provinces.

- Some seed growers improved their income.

- NAFES is planning to expand the multiplication and distribution system established by the Project to 7 other provinces funded by World Bank/EU and SDC.

ii) Indirect impacts

- In The Seventh National Socio-Economic Development Plan, the target amount of high quality rice seeds was mentioned. It indicates recognition of the importance of quality seeds in MAF.
- The production and the quality of consumption rice increased when ordinary farmers used R3 seeds.

(5) Sustainability

Sustainability of this Project is reasonably high; however, there are still some problems outstanding.

i) Institutional aspects

The linkage among NAFES, RCCRC, PAFO/DAFO and SMS/SMCs has been strengthened, and the counterpart and target organizations have enhanced their capacity. However; the Seed Board has not established, and collaboration of the department level is yet to be improved.

ii) Financial aspects

NAFES, RCCRC, and some of the PAFOs and SMS/SMCs started to input their own budget towards the purchase of equipment and machinery for rice seed multiplication activities. Most interviewees were confident in their ability to continue some activities after completion of the Project, but expressed concern regarding the difficulty expanding the Project. However, World Bank/EU and SDC are funding a project in 7 provinces, and NAFES is expanding the Rice Seed Multiplication and Distribution System established under RISEP.

iii) Technical aspect

Since the capacity of the staff has been greatly enhanced, they now feel more confident in working by themselves. Various manuals were created in a way that target group can easily understand in the field, and it will contribute the sustainability of the technical transfer.

3-4 Conclusions

Based on a series of interview and discussions with officials concerned and counterparts as well as the field survey, the Evaluation Team concluded that the Project would achieve the project purpose during the Project period.

The Project successfully established the Rice Seed Multiplication and Distribution System in the target area, which did not exist in the past in Lao PDR. The target area only covers 20 % of the rice production in the county, therefore, to expand the impact of the Project nationwide, the Government needs to tackle several issues including legal framework, inspection system, marketing improvement, and technical services towards farmers.

Although necessity of further external assistance in technical and financial aspects was observed for expansion of the activities initiated by the Project, it is appropriate that the Project terminates as planned in the R/D since the Project has achieved its objectives.

3-5 Recommendations

(1) Activities for remaining period of RISEP

i) Improvement of the Strategy

Develop a national strategy for seed multiplication and distribution which cover the following areas in collaboration with relevant authorities

Legal framework, National Seed Board, Inspection system, Distribution system of R3 seeds, and Dissemination of cultivation techniques of improved varieties, and others

ii) Standardization of RISEP model

To introduce the System to other area, it is necessary to identify and organize the required steps and authorize it as a RISEP model.

(2) Stronger collaboration among departments in MAF

After implementation of the Project, direct counterparts within the target areas have enhanced their capacity and begun to work very closely; however, the level of collaboration among departments was seen as being unsatisfactory. To improve every aspect of rice production, Quality (NAFRI), Control (DOA), and Multiplication and Distribution (NAFES), effective collaboration among these departments is vital. The Strategy Planning of Rice Seed Multiplication and Distribution document has not been adopted yet, but, hopefully, a Seed Board will be established in the future, and these three organizations will then be better able to work together.

(3) Areas to be improved for the establishment of nationwide Seed Multiplication and Distribution System

Everyone interviewed during the evaluation expressed their appreciation towards the successful implementation of the Project. However, they envisaged that it was just the beginning of JICA's engagement in this field, and appealed for JICA to continue with its involvement.

The Team recognizes the necessity to clarify roles and responsibilities among various actors including the Government organizations, farmer groups, private sectors, and development partners. Bearing this as precondition, the Team identified the area to be improved as described as follows:

Area	Activities	Government	Private Sector
Policy	- Seed laws / Regulations / Standards	A	C
System	- National / Provincial Seed Board - Inspection system - Distribution system	A	B
Technology	- Seed production - Cultivation technology	B	C
Infrastructure	- Production / Post harvest / Distribution	B	C

\*A-C represents the extent of potential contribution/involvement

\*\*Some of the activities indicated in the table have been partially achieved by RISEP

### 3-6 Lessons learnt from the Project

#### (1) Special care to introduce precision equipment

In the early stages of the Project, Japanese digital incubators were provided; however, they all broke down after only a few weeks, due to the unstable electrical current in Lao PDR. This occurred even though all the equipment utilized the appropriate transformers. They are currently usable, but it would be advisable to consider the local conditions, and in the future, include special guarantee arrangements within contracts with suppliers, when purchasing such precision equipment.

#### (2) Keys to success: Active participation of farmer groups (ownership)

The Project successfully delivered the concept to convince the farmers to produce the improved varieties, and it strengthened the farmers' ownership and willingness to take an active participation in the Project.

#### (3) Keys to success: A combination of a working steering committee (regular monitoring and discussion) to share information and to establish strong network

The Project established an effective steering committee, and held regular meetings amongst concerned parties (every two months) for monitoring purposes. This made it possible to identify problems quickly, and to make the necessary alterations and suggestions to the JCC to change the project design, as and when necessary. Moreover, the steering committee gave an opportunity for organizations to share their views and experiences, and helped to build strong network among organizations and farmers.

#### (4) Successful localization of the project components

The Project was successful modifying the technologies currently conducted in Japan to match with the condition of Lao PDR.

- Effective combination of various trainings and study tours (in Japan, in Thailand and Vietnam, and in country)

- Locally modified equipments (separators and winnowers)

#### (5) Integrated enhancement of seed distribution flow to secure sustainability of the Project

In this project, not only central governmental bodies, such as NAFES and RCCRC, but also PAFO/DAFO, SMS/SMCs and seed growers had the opportunity to enhance their capacity in rice seed multiplication and distribution. Working with farmers at a local level, and efforts to continue project activities should ensure sustainability of the Project.