

## Simplified Ex-Post Evaluation for Grant Aid Project

Evaluator, Affiliation	Junko Miura Global Link Management Inc.	Duration of Evaluation Study
Project Name	The Project for the Rehabilitation and Reinforcement of the Capacity of National Center of Forest Seed and Four Regional Forest Seed Departments (Le projet de réhabilitation et renforcement des capacités du Centre National de Semences Forestières (CNSF) et de quatre Antennes Régionales de Semences Forestières (ARSF))	March 2010—December 2010

### I Project Outline

Country Name	Burkina Faso	
Project Period	June 2004 (Detail Design)-December 2005 (Hand-over of the equipment)	
Executing Agency	Ministry of Environment and Livelihoods (MECV) Centre National de Semences Forestières (CNSF), Anennes Régionales de Semences Forestières (ARSF) Bobo-Dioulasso, ARSF Dori, ARSF Fada N'Gourma, ARSF Kaya	
Project Cost	Grant Limit: 321 million yen	Actual Grant Amount: 279 million yen
Main Contractors	Construction: NA      Procurement: Sojitz Corporation and Itochu Corporation	
Main Consultants	Asia Air Survey Co., Ltd.	
Basic Design	“Basic Design Report for the Project for the Rehabilitation and Reinforcement of the Capacity of National Center of Forest Seed and Four Regional Forest Seed Departments,” Asia Air Survey Co., Ltd., August 2008	
Related Projects (if any)	1. 1999, Grant Aid Project for the Improvement of Seedling Production in Rural Area (Kaya ARSF and Dori ARSF, which are the target areas of this project, are included in the grant project. The executing agency for the grant project is Environmental Preservation Agency (Direction Generale de la Preservation de l'Environnement, DGPE.) 2. 2007, training course “New Technology Introduction and Technology Administrator Reinforcement Program for CNSF” (training on genetic diversity using the equipment provided by this project) 3. 2010-2013, Technical Cooperation Project of Support for Seedling Production Sector. The implementing agency is the Department of Forest, DGPE 4. 1997-2008, Dispatch of three Advisors for Environment and Afforestation/Reforestation to the Department of Forest, DGPE 5. 2010, Follow-up cooperation to this project (Some of the equipment for offices and for training/dissemination was damaged in the September 2009 flood. Follow-up cooperation was implemented by JICA to recover some of the damaged equipment.)	
Project Background	In Burkina Faso, CNSD and ARSF have carried out the production and distribution of seeds/seedlings and research and dissemination of the seed/seedling production. However, due to the deterioration of equipment, their activities and research were limited. Therefore, the Government of Burkina Faso requested the provision of new equipment to promote their activities in order to contribute to the production of seeds/seedlings, which contributes to the plantation project.	
Project Objective	To provide equipment for research/testing and for seed/seedling production in CNSF and four ARSF in order to contribute to the research of good quality seeds and seedlings, the seed/seedling production and the supply of seedling for the afforestation project.	
Output[s] (Japanese Side)	<Equipment> Research and testing equipment, seed production equipment, seedling production equipment, water supply equipment, training and dissemination equipment, equipment for operations <Soft component> Bio statistics and follow-up for equipment maintenance	

### II Result of the Evaluation

Summary of the evaluation

- This project has been highly relevant with the country's development plan and development needs both at the time of planning and the ex-post evaluation, as well as Japan's ODA policy at the time of planning; therefore, its relevance is high. Although the project cost was within the plan, the project period was longer than planned, therefore, the efficiency is fair. Although two out of three indicators did not reach eighty percent of the targets for the target year, the reasons for non-achievement were external factors. Furthermore, all the indicators had largely achieved their targets at the time of ex-post evaluation, and this project contributed to the afforestation/reforestation as one of its indirect effects; therefore, its effectiveness is high. Some problems have been observed in the system and techniques of the executing agency, so the sustainability of the project effect is fair. In light of the above, this project is evaluated to be satisfactory.

<Recommendations to CNSF>

1. It is recommended that CNSF inform the supplier of the malfunctioning research/experiment equipment such as the photosynthesis indicator and request that the supplier diagnose the cause of the failure and take action if necessary.
2. 1) As soon as the CNSF staff receiving training on how to operate the research/experiment equipment as a part of the soft component of this project returns from the training, he should provide other laboratory staff with guidance on how to operate the growth chamber, C/N coder, and photosynthesis indicator. 2) If the above staff does not have sufficient skill to provide other staff with guidance, it is recommended that re-training be organized at the expense of Burkina Faso.
3. It is recommended that CNSF discuss with MECV the possibility of increasing the number of ARSF seedling experts and technicians and of providing additional subsidies required for the increase of the staff.

<Recommendation to JICA>

- It is recommended that JICA provide CNSF with technical support in the event that CNSF faces difficulties in implementing Recommendation 1 and Item 2 of the Recommendation 2.

<Lessons Learned>

1. 1) When targets for effect indicators are decided in similar environmental projects in the future, targets should be set with several target years, not a single target year. 2) When we evaluate effectiveness at the time of the ex-post evaluation, it is recommended that a specific year be selected when there is no serious impact by external factors, such as the natural environment, out of several target years, and then to measure the achievement of the indicators in the specific year, or to check the secular change of the established target years.
2. In this project, the installation of the equipment was delayed due to delays in the ground leveling and civil engineering work which are the responsibilities of CNSF. In similar projects in the future, the work for which the executing agency is responsible should be conducted without delay.

<Constraints of this evaluation study>

- This evaluation study is a simplified version, and the evaluation was based solely on the data obtained in a review of documents, questionnaires given to the executing agency and interviews with Japanese consultants. Accordingly, the data that could be confirmed through direct observation (such as the use of the donated facilities and equipment) was assessed based on responses to questionnaires. Moreover, the primary data forming the basis for the indicators in the questionnaire responses was not confirmed. Due to the lack of a field survey, there was no opportunity to hold discussions with the executing agency regarding the recommendations.

## 1 Relevance

### (1) Relevance with the Development Plan of Burkina Faso

In 1998, the Government of Burkina Faso formulated the following policies and plans to combat desertification: 1) National Forest Policy (PNF) consisting of the national afforestation/ reforestation plan (PNAF), national village forest plan (PNFV), plan for community forest for charcoal/firewood (PBE), 2) Green Belt Plan, which is a project for afforesting/reforesting an area 2km in width and 630km in length, and 3) Five-Year Plan for afforestation/ reforestation for desertification (1998-2002). In 2007, the government formulated the National Response and Action Plan for Climate Change, and it is promoting forest conservation and reforestation with the aim of both alleviating and responding to climate change. Furthermore, in 2007, the government formulated the National Strategy for Seedling Production in order to promote activities for afforestation/ reforestation. Thus, this project was consistent with Burkina Faso's development policy both at the time of planning and the ex-post evaluation.

### (2) Relevance with the Development Needs of Burkina Faso

At the time of planning, in order to provide good quality seeds and seedlings to afforestation/reforestation projects such as Green Belt Plan, CNSF and ARSFs have been involved in the production and sales of seeds and seedlings as well as the research and dissemination of seeds and seedling production. However, the equipment became obsolete, which started to negatively affect those activities and research. Up to the time of the ex-post evaluation, seedling production in the public seedling nursery had been expanded through the Grant Aid Project for the Improvement of Seedling Production in Rural Area (1999), as well as this project. At the same time, seedling production in the private sector has been encouraged recently. As a result, seedling production in Burkina Faso has picked up. However, there are still challenges, such as 1) the institutionalization of private seedling producers, 2) quality improvement of seedlings and development of a distribution system, and 3) formulation and monitoring of an efficient seedling production plan. Thus, development needs for seedling production remain high at the time of ex-post evaluation.

### (3) Relevance with Japan's ODA Policy

According to the ODA Country Cooperation Data Book 2004, the support for Burkina Faso was to be given in the priority areas: basic human needs and prevention of desertification. Therefore, it can be said that this project was consistent with Japan's aid policies for Burkina Faso when the project was planned.

This project has been highly relevant with the country's development plan and development needs, as well as Japan's ODA policy; therefore, its relevance is high.

## 2 Efficiency

### (1) Project Outputs

The outputs on the Japanese side were mostly as planned, although there were minor changes such as a change in equipment specifications.

### (2) Project Period (Project Inputs)

The planned project period was 15 months, whereas the actual project lasted 19 months. Thus, the project period was longer than planned (126% of the planned duration). The reasons were as follows: 1) The basic civil engineering work to be conducted by CNSF/ARSF such as ground leveling for greenhouses and pipe-house, construction for roof of pumps, and civil engineering work for power supply was delayed. Accordingly, the installation of the equipment was delayed in spite of the arrival of the equipment. 2) Although all the high-purity nitrogen gas was to be locally procured at the time of planning, a sufficient quantity of the gas was not available in the country. Thus, it took time to make up for the shortage with a supply from a neighboring country.

### (3) Project Cost (Project Inputs)

The planned project cost was 321 million yen, whereas the actual project cost was 279 million yen. Thus, the project cost was lower than planned (87% of the planned cost). The reason for the decrease was that the actual price of contractors for procurement was lower than planned.

Although the project cost was within the plan, the project period was longer than planned, therefore the efficiency of the project was fair.

## 3 Effectiveness / Impact

### (1) Quantitative Effects

None of the three indicators -- 1) seeds production volume, 2) seeds distribution volume, and 3) seedling production volume -- achieved their targets for the target year 2006, but all the indicators largely achieved their 2006 targets in 2009.

1) Whereas the actual total seed production of CNSF and ARSF in 2006 was as low as 4,228kg (68% of the planned), the planned target for 2006 was 6,200kg. The total seed production was increased to 5,802kg (94% of the planned) in 2009.

2) Whereas the actual total seed distribution volume for domestic, overseas and research use in 2006 was as low as 2,565kg (51% of the planned), the planned target for 2006 was 5,000kg. The total seed distribution was increased to 4,798kg (96% of the planned) in 2009. Total actual seed production for domestic and overseas use did not achieve the targets in the target year, but the actual product for research use achieved its target in the target year.

3) Whereas the actual total seedling production volume of CNSF and ARSF in 2006 was 298,904 (85% of the planned), the planned target for 2006 was 350,000. The total seedling production volume was increased to 370,300 (108% of the planned) in 2009.

One of the reasons for non-achievement of Indicators 1 and 3 for the target year 2006 is that some species did not bear fruit due to less rainfall than usual. Furthermore, according to the information by CNSF and JICA, the seedling production volume varies from year to year and by region (ARSF), depending on the volume of the afforestation/reforestation campaign by the MECV and the volume of orders from donor-funding projects, NGOs and individuals. One of the reasons that seeds distribution within the country did not achieve its target in 2006 is that the stakeholders had lost their incentives due to the late rainy season in 2006. The reason why seed distribution to the overseas buyers did not achieve its target is unknown.

Photosynthesis indicator for the growth chamber, one kind of research and experiment equipment, has not been functioning due to inappropriate operation. The C/N coder has not been utilized because the staff in the laboratory who had received operational training as part of the soft component of this project is outside CNSF for training and other laboratory staff who have not received training do not know how to operate the equipment. However, other equipment has been fully utilized. In the joint research with University of Ouagadougou, the National Science & Technology Research Center (CNRST), these universities and institutes utilize the research and experiment equipment provided by this project to analyze materials. According to CNSF, incubators for seedlings, photosynthesis indicators, and refrigerators for seeds are useful for selecting and providing seeds which match with the region and climate. Furthermore, the research and experiment equipment has been utilized to improve the seeds' quality in the Operation Acacia Project carried out by the CNSF/Food and Agriculture Organization (FAO). None of the equipment is used for other purposes.

### (2) Impacts (Impacts on the natural environment, Land Acquisition and Resettlement, Unintended Positive/Negative Impact)

The implementation of this project did not have a negative impact on the natural environment. According to CNSF, this project has contributed to environmental protection through the seedling and seeds supplies to the government, donors, and NGOs which are implementing afforestation/reforestation projects such as PICOFA Project, Ile de Paix Project, and others. Quantitative effects such as the afforested/reforested area which was increased by this project are unknown.

There were no particular problems in the land acquisition process, and no residents were relocated.

Although two out of three indicators did not reach 80% of the targets for the target year, the reasons for non-achievement were external factors. Furthermore, all of the indicators had largely achieved their targets at the time of ex-post evaluation, and this project contributed to the afforestation/reforestation as one of the indirect effects; therefore, its effectiveness is high.

## 4 Sustainability

#### (1) Structural Aspects of Operation Maintenance

As planned, CNSF is responsible for overall management and guidance of all the facilities and equipment including those of ARSFs. One staff has been in charge of O&M of the overall facilities and equipment. Specifically, the users of the equipment in CNSF and ARSFs submit reports to the O&M staff when there are any equipment malfunctions. The staff checks the status of the malfunctioning equipment based on the reports, and then reports to the Director General through the Department of Administration and Finance (DAF) and receives his instructions on how to make the repairs. There were seven research and technology staff, whereas the planned number was four. Meanwhile, the number of staff, including experts on seedlings and technicians, was decreased by one or two in each ARSF compared with the number at the time of planning, so it is necessary to bring the number back to three or four staff in each ARSF.

#### (2) Technical Aspects of Operation Maintenance

It was reported that both CNSF and ARSFs utilize operation manuals, and they have sufficient regular O&M skills. CNSF has also sufficient skills in making repairs. However, the laboratory staff in CNSF require training in research and experiment equipment for a certain period of time because this was the first time that the laboratory staff had used the photosynthesis indicator and C/N coder. In addition, although one laboratory staff received training on how to operate this particular piece of equipment as part of the soft component of this project and the training in Japan in 2007, this staff is currently outside CNSF for training, and other staff have not received training on how to operate this particular equipment. When this equipment malfunctioned, the staff checked the manuals, but they have not contacted suppliers. According to the Japanese consultant, if training on operating the research and experiment equipment is required, the required time for training is three to four days each for growth chamber, leaf-area indicator, and photosynthesis indicator and one week for the C/N coder and other equipment.

#### (3) Financial Aspects of Operation Maintenance

While revenue from sales of seeds and seedlings exceeded the estimates at the time of planning, fuel costs for the equipment slightly exceeded the estimate. The approved amount of the government subsidy has been gradually decreasing since 2006 and accordingly the annual budget of CNSF has been gradually decreasing. However, the annual budget of CNSF between 2007 and 2009 was as high as 150% of that of 2001. Given these factors, it is considered that the minimum financial resources required for O&M have been secured. There has been some revenue from the analysis service in the joint research with universities since 2008, although it has been very limited.

#### (4) Current Status of Operation Maintenance

In general, the O&M status of the equipment of CNSF/ARSFs is good except for some equipment. The photosynthesis indicator in the growth chamber requires failure diagnosis. Some parts of the equipment for office and for training/ dissemination were damaged by the flood in September 2009. Follow-up cooperation has been implemented by JICA to recover some of the damaged equipment.

Some problems have been observed in the system and techniques of the executing agency; therefore, sustainability of the project effects is fair.