

Country Name	<b>Seedling Production Support Project</b>
Burkina Faso	

**I. Project Outline**

Background	<p>Burkina Faso, whose northern territory is located in the Sahel region which is a semi-dry area with an annual rainfall of less than 600mm, faced the progressing desertification causing aggravation of living environment, such as land degradation, deforestation, depletion of water resources and other environmental deterioration. In particular, since livelihood of the rural population accounting 80% of the total population depended on natural resource such as forest resource, there were concerns about deterioration of living environment and poverty in rural areas. Under those situations, the government of Burkina Faso developed a series of policies to implement sustainable management of natural resource in order to cope with those issues. In addition, for promotion of forestation, the National Strategy of Seedling Production (SNPP: Stratégie National de Production de Plants) was elaborated by the Ministry of Environment and Living Environment (Ministère de l'Environnement et du Cadre de Vie: MECV) (in 2007. Although the government made efforts for quantitative expansion of seedling production, there were still remaining issues including a) organizing private seedling producers, b) quality improvement of seedlings and development of distribution system, c) preparation and monitoring of efficient seedling production plan, and so forth.</p>												
Objectives of the Project	<p>Through delivery of trainings on seedling production techniques for the officers of the Ministry of Environment and Sustainable Development (MEDD: Ministère de l'Environnement et du Développement Durable)) and the Regional Directorates of Environment and Sustainable Development (DREDDs: Direction Regional de l'Environnement et du Développement Durable ) and seedling producers, as well as delivery of public awareness activities in the 2 target regions, the project aimed at promotion of planned and efficient seedlings production in the target areas, thereby contributing to strengthening of afforestation activities in the target areas.</p> <ol style="list-style-type: none"> <li>Overall Goal: Afforestation activities are strengthened in the target areas.</li> <li>Project Purpose: Planned and efficient seedlings production is promoted in the target areas.</li> </ol>												
Activities of the project	<ol style="list-style-type: none"> <li>Project Sites: Central Region and North Region</li> <li>Main activities: 1) Development of training materials on seedling production techniques and implementation of the trainings for the officers of MEDD and DREDDs, seedling producers and general public, 2) Holding conference at regional and district levels and conducting public awareness activities in the 2 target regions, including dissemination of newsletters and training materials, 3) Holding workshops on responsibilities of forest administration</li> <li>Inputs (to carry out above activities) <table border="0" style="width: 100%;"> <tr> <td style="width: 50%;">Japanese Side</td> <td style="width: 50%;">Burkina Faso Side</td> </tr> <tr> <td>1) Experts: 4 persons</td> <td>1. Counterpart personnel: 10 persons</td> </tr> <tr> <td>2) Acceptance of trainees in Japan: 2 person</td> <td>2. Land and Facilities: Project office, storage</td> </tr> <tr> <td>3) Equipment: Vehicles, motorbikes, office equipment, etc.</td> <td>3. Local Cost: Office appliance for the project, communication cost, electricity cost, and miscellaneous expenses</td> </tr> </table> </li> </ol>					Japanese Side	Burkina Faso Side	1) Experts: 4 persons	1. Counterpart personnel: 10 persons	2) Acceptance of trainees in Japan: 2 person	2. Land and Facilities: Project office, storage	3) Equipment: Vehicles, motorbikes, office equipment, etc.	3. Local Cost: Office appliance for the project, communication cost, electricity cost, and miscellaneous expenses
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Ex-Ante Evaluation	2008	Project Period	April, 2010 – April, 2013	Project Cost	(Ex-ante) 187 million yen (Actual) 217 million yen								
Implementing Agency	<p>Directorate of Forest (Direction des Forêt: DiFor)* of the Ministry of Environment and Sustainable Development (MEDD)**</p> <p>* DiFor has changed to the Directorate of Forests and Reforestation (Direction des Forêt et Reboisement: DFR) of the Ministry of Environment, Green Economy and Climate Change (Ministère de l'Environnement, de l'Economie Verte et du Changement Climatique: MEEVCC) in January 2016 when MEDD was reformed to MEEVCC.</p> <p>** MEDD was reorganized from MECV in April 2011, and then was reorganized to MEEVCC in January 2016.</p>												
Cooperation Agency in Japan	Forestry and Fisheries Agency, National Center for Forest Seeds, Japan Overseas Forestry Consultants Association, Japan Forest Technology Association												

**II. Result of the Evaluation**

## &lt;Constraints on Ex-post Evaluation&gt;

- According to the security warning by the Ministry of Foreign Affairs of Japan, travel to Yatenga province and Loroum province as well as Ouahigouya in North Region has been restricted due to the security risks. Therefore, the ex-post evaluation team visited the Central Region and Boussou (Zondoma) in the North Region but was not able to visit Ouahigouya (Yatenga) and Titao (Loroum) which had been selected for the ex-post evaluation. Therefore, at this ex-post evaluation, the interview survey with planters from Ouahigouya and Titao was conducted during the field survey in Boussou.

<Special Perspectives considered by Ex-post Evaluation>

- There is an issue of reliability of data showed in the Annual Reports of Afforestation Campaign by DFR, in particular for the Central Region with the very low level of the carry-out rates during the period from 2013 to 2015. It could be because of the limited data source since their records have been based on only the followed-up producers and have not covered all the producers in the region. Therefore, in this ex-post evaluation, the project effects including the achievement level of the Overall Goal were verified not only by the Annual Report of Afforestation Campaign DFR but also the data collected by this ex-post evaluation despite the limited coverage.

## 1 Relevance

<Consistency with the Development Policy of Burkina Faso at the time of ex-ante evaluation and project completion>

The project was consistent with the Burkina Faso's development policy of "the National Strategy of Seedling Production (SNPP: Stratégie Nationale de Production de Plants), (2007)", "National Policy on Environmental Matters (PNE: Politique Nationale en Matière d'Environnement) (2007)", "National Programme of Sustainable Management for Forest Resources and Wildlife (PRONAGREF: Programme National de Gestion Durable des Ressources Forestières et Fauniques), (2006-2015)" and "Strategy for Accelerated Growth and Sustainable Development (SCADD: Stratégie de Croissance Accélérée et de Développement Durable), (2011-2015)", which prioritized sustainable forest management, including reinforcement of seedling production.

<Consistency with the Development Needs of Burkina Faso at the time of ex-ante evaluation and project completion >

The project was consistent with the Burkina Faso's development needs of expansion of seedling production in order to cope with the issue of reduction of forest resources in the country which had not changed from the time of ex-ante evaluation and to the project completion.

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

The project was consistent with the Japan's ODA policy, which was confirmed by the policy dialogue for economic cooperation between Burkina Faso and Japan in 2007, to support agriculture and rural development through natural resource conservation and sustainable effective use as one of the 3 priority areas.

<Evaluation Result>

In light of the above, the relevance of the project is high.

## 2 Effectiveness/Impact

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

The Project Purpose was achieved by the project completion. The carry-out rate of the seedlings produced in the target areas (Indicator 1), according to the end-line survey conducted in 2011, increased from 77% to 85% as expected. Also, the rate of the number of the seedling producers recording necessary data in their nursery books in the target areas (Indicator 2) reached to 66% (target value: 60%) at the time of terminal evaluation.

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

The project effects have been mostly continued since the project completion. The carry-out rate of the seedlings produced at the regional level differed by the target regions. According to the data collected by the field survey of ex-post evaluation in the Central Region and the three departments (Ouahigouya (Yatenga), Titao (Loroum) and Boussou (Zondoma) in the North Region, the carry-out rates sustained at more than 80% for the same period. On the other hand, the carry-out rate, which was collected at the ex-post evaluation in the three departments of the North Region, improved to 114.43% in 2014 but decreased to 64.53% in 2016. According to the planters surveyed, the sharp decrease in the carry-out rates in the three departments of the North Region in 2016 could be brought by producers' poor market based planning and non-fulfillment of contracts by the producers.

According to the field survey by this ex-post evaluation, 14 out of 19 surveyed producers in the Central Region and 19 out of 20 surveyed producers in the three departments of the North Region took a record of data such as production in their nursery register books in 2016. According to the producers interviewed by the field survey at the ex-post evaluation, all the producers who had participated in the project activities during the project implementation, knew well about the good practice of using a nursery register book and its advantages, but most of them have not make records. It is because many of them are not able to make production records in the nursery books due to their old age and limited literacy education

In terms of utilization of production plan introduced by the project, the entire seedling producers have continuously formulated and implemented their individual seedling production plants based on their individual needs through consultations with DFR/DREEVCC (DREEVCC: Direction Regionale de l'Environnement, de l'Economie Verte et du Changement Climatique). The driving forces for the producers to use the services provided by DFR/DREEVCC are: i) technical supports on seedling production and planning, and ii) non-technical support to find buyers and solve contract issues.

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

The Overall Goal has been partially achieved and in particular, the afforestation activities in the Central Region has significantly improved. According to the Annual Report of Afforestation Campaign by DFR, improvement of the issues of oversupply or shortage of seedlings for afforestation (Indicator 1) has differed by region. In the Central Region, the balance of the number of seedlings produced and the number of seedling used for afforestation has considerably improved by the decrease in the surplus of the seedling production from more than 1 million in 2013 to around 260,000 in 2015. On the other hand, the balance in the North Region had significantly fluctuated year by year. The following two reasons had caused to worsen the situations: i) seedling producers' poor planning ii) non-fulfillment of contracts between seedling producers and planters. In terms of improvement of the rootage rate in the target regions (Indicator 2), while it has improved in the Central Region from 89.6% in 2013 to 94.0% in 2016, it decreased from 76.6% to 46.4% in the North Region for the same period. According to the planters interviewed by the field survey at the ex-post evaluation, the improvement of the rootage rate in the Central Region was attributed to the capacity building through the project, in particular the improvement of planting skills as well as timely planting in the rainy season. On the other hand, there are several reasons for the deteriorated rootage rate in the North Region, such as damages by termites and other soil parasites destroying the seedlings, wandering animals destroying young planted seedlings and terrible droughts.

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

Some positive impacts by the project have been observed at the time of the ex-post evaluation. Residents in the target regions of Central Region and North Region became sensitized about desertification issues and how to take action to contribute to afforestation.

Bush fires in the target regions have reduced due to the afforestation activities by the trained planters using the seedlings produced by the trained producers. Lands for planting are better secured through the planting activities, since empty land can be easily occupied or used illegally.

<Evaluation Result>

In light of the above, the project achieved the Project Purpose and partially achieved the Overall Goal. The carry-out rates and the rootage rates in the target regions have improved to some extent due to the improved skills of planting and planning for timely planting by the project activities. In addition, there are some positive impacts such as sensitized population in the target regions to contribute to afforestation, reduction of bush fires and secured lands for planting. Therefore, the effectiveness/impact of the project is high.

Achievement of project purpose and overall goal

Aim	Indicators	Results																																								
(Project Purpose) Planned and efficient seedlings production is promoted in the target areas.	<p>(Indicator 1) The carry-out rate* of the seedlings produced in the target areas is increased (77%-&gt;85%)</p> <p>*No. of seedlings used among the produced seedlings, including for the purpose of sales and for self-consumption</p>	<p><u>Status of the achievement: Achieved</u> (Project Completion) ● The end-line survey in 2011 with seedling producers at Communal Workshop: 85%</p> <p>(Ex-post Evaluation) Partially continued [Central Region]</p> <table border="1" data-bbox="732 562 1519 815"> <thead> <tr> <th></th> <th>2013</th> <th>2014</th> <th>2015</th> <th>2016 (as of November)</th> </tr> </thead> <tbody> <tr> <td>a) No. of seedlings produced</td> <td>134,300</td> <td>145,300</td> <td>132,800</td> <td>158,800</td> </tr> <tr> <td>b) No. of seedlings used (sales/self-consumption)</td> <td>119,600</td> <td>130,250</td> <td>114,250</td> <td>135,050</td> </tr> <tr> <td>b/a) (%)</td> <td>89.05</td> <td>89.64</td> <td>86.03</td> <td>85.04</td> </tr> </tbody> </table> <p>[North Region]</p> <table border="1" data-bbox="732 880 1519 1173"> <thead> <tr> <th></th> <th>2013</th> <th>2014</th> <th>2015</th> <th>2016 (as of November)</th> </tr> </thead> <tbody> <tr> <td>a) No. of seedlings produced</td> <td>177,268</td> <td>183,065</td> <td>192,860</td> <td>142,483</td> </tr> <tr> <td>b) No. of seedlings used(sales/self-consumption)</td> <td>171,260</td> <td>209,485</td> <td>169,272</td> <td>91,955</td> </tr> <tr> <td>b/a) (%)</td> <td>96.61</td> <td>114.43</td> <td>87.76</td> <td>64.53</td> </tr> </tbody> </table> <p>(Source) Collected by the field survey of this ex-post evaluation.</p>		2013	2014	2015	2016 (as of November)	a) No. of seedlings produced	134,300	145,300	132,800	158,800	b) No. of seedlings used (sales/self-consumption)	119,600	130,250	114,250	135,050	b/a) (%)	89.05	89.64	86.03	85.04		2013	2014	2015	2016 (as of November)	a) No. of seedlings produced	177,268	183,065	192,860	142,483	b) No. of seedlings used(sales/self-consumption)	171,260	209,485	169,272	91,955	b/a) (%)	96.61	114.43	87.76	64.53
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(Overall goal) Plantation activities are strengthened in target areas.	<p>(Indicator 1) The issues of oversupply or shortage of seedlings for afforestation are reduced in target regions.</p>	<p><u>Status of achievement: Partially achieved.</u> (Ex-post Evaluation) [Central Region]</p> <table border="1" data-bbox="732 1581 1465 1839"> <thead> <tr> <th></th> <th>2013</th> <th>2014</th> <th>2015</th> </tr> </thead> <tbody> <tr> <td>a) No. of seedlings produced</td> <td>1,263,776</td> <td>978,400</td> <td>481,592</td> </tr> <tr> <td>b) No. of seedlings used for afforestation</td> <td>231,540</td> <td>156,674</td> <td>215,834</td> </tr> <tr> <td>(a-b)</td> <td>1,032,236</td> <td>821,726</td> <td>265,758</td> </tr> </tbody> </table> <p>[North Region]</p> <table border="1" data-bbox="732 1904 1465 2130"> <thead> <tr> <th></th> <th>2013</th> <th>2014</th> <th>2015</th> </tr> </thead> <tbody> <tr> <td>a) No. of seedlings produced</td> <td>584,766</td> <td>759,111</td> <td>347,637</td> </tr> <tr> <td>b) No. of seedlings used for afforestation</td> <td>531,065</td> <td>586,576</td> <td>518,226</td> </tr> <tr> <td>(a-b)</td> <td>53701</td> <td>172535</td> <td>-170589</td> </tr> </tbody> </table> <p>(Source) Annual Reports of Afforestation Campaigns of DFR.</p>		2013	2014	2015	a) No. of seedlings produced	1,263,776	978,400	481,592	b) No. of seedlings used for afforestation	231,540	156,674	215,834	(a-b)	1,032,236	821,726	265,758		2013	2014	2015	a) No. of seedlings produced	584,766	759,111	347,637	b) No. of seedlings used for afforestation	531,065	586,576	518,226	(a-b)	53701	172535	-170589								
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(Indicator 2) The rootage rate** is improved in target regions.  **The number of seedlings that survive after certain period of time compared to the number of seedlings during the afforestation. Certain period of time means after having spent a dry season (1 or 2 years according to the period of plantation)	<b>Status of achievement: Partially achieved.</b>				
	(Ex-post Evaluation)				
	[Central Region]				
		2013	2014	2015	2016 (as of November)
	a) No. of seedlings survived	18,943	18,795	15,290	11,236
	b) No. of seedlings planted	21,140	24,480	16,550	11,950
	a)/b) (%)	89.60	76.77	92.38	94.02
	[North Region]				
		2013	2014	2015	2016 (as of November)
	a) No. of seedlings survived	10,590	7,409	7,206	5,783
b) No. of seedlings planed	13,824	10,305	10,148	12,453	
a)/b) (%)	76.59	71.89	71.1	46.43	
(Source) Data collected by the field survey for this ex-post evaluation.					

Source : Project completion report, Terminal Evaluation Report, Annual Reports of afforestation campaign, Interviews with producers (19 in Central Region and 20 producers in North Region), Interviews with planters (19 in Central Region and 16 in North Region)

### 3 Efficiency

Although the project period was as planned (ratio against the plan: 100%), the project cost exceeded the plan (ratio against the plan: 116%) due to the additional activities for the additional real needs on the field that were not taken into account during the planning stage. Therefore, efficiency of the project is fair.

### 4 Sustainability

#### <Policy Aspect>

The activities to promote the planned seedling production and more effective afforestation activities have been endorsed by SNPP (2007) which is still valid. Although the policy recommendations proposed by the project, which was produced as one of the project outputs, have not been incorporated in any national policies related to seedling production at the time of ex-post evaluation, some of the related organizations such as DFR, the National Center of Forest Seeds (Centre National de Semences Forestières: CNSF) and DREEVCCs and other departmental offices have unofficially reflected them on the implementation of seedling production and reforestation activities, including usage of recommendable bags for seedling production, usage of improved seedlings, identification of potential lands to be reforested, planning of reforestation activities at the municipal level and consultation with CNSF for capacity building of technicians, .

#### <Institutional Aspect>

There have been important changes in organizational structures at the central level. In particular, the decentralization process, which took place in 2014, made clear divisions of roles for appropriate organizations and enabled each of the organizations to keep the continuation of well-planning seedling production introduced by the project. Whereas DFR take responsibilities for financial supports and training for producers and planters, CNSF is responsible for applied research on seedlings and dissemination. In terms of seedling certification, sworn quality control officers of CNSF were in charge of such duty up to 2014, but CNSF antennas and private producers are currently engaged in it. DREEVCC of the Central and North Region play a role to implement seedling production and dissemination programs and the related activities in each region. The sufficient number of officers has been appropriately deployed to each organization whereby they have kept answering to their responsibilities given for seedling production and dissemination (DFR: 9, CNSF: 27, DREEVOC of the Central Region: 68 and DREEVCC of the North Region: 82).

In terms of sales and purchase of seedlings, the seedling producers and the planters conclude contracts, but contractual defaults, such as a case where the producers were not able to ship out the seedlings with the planned volume and quality or the case where the planters did not purchase the seedlings as contracted, sometimes have occurred. In the case of contractual defaults, DFR and other offices provide the producers with advices or supports, such as helping to find alternative buyers of the produced seedlings.

#### <Technical Aspect>

Almost all of the key government officers of DFR, CNSF and DREEVCC of the Central Region and the North Region trained by the project have sustained the necessary skills and knowledge to provide technical support for the producers and the planters since they recognized importance of the skills and knowledge obtained through the project. Also, according to the planters and producers, they have sustained the necessary skills for the well-planned production or proper planting with higher rootage rate.

According to the planters, seedling producers and departmental officers, the training courses developed by the project have not been continuously delivered due to the lack of financial support by the government. However, in terms of trainings on reforestation, 9 training courses sponsored by FAO, individuals or other private organizations, such as Project Preparation of Investment Fund for Environment (Pre-FIE)<sup>1</sup>, and the Program of Economic Growth in the Agriculture Sector<sup>2</sup>, have been delivered at ad hoc basis

On the other hand, the training materials and other technical documents such as a species list, nursery monitoring records, seedling

<sup>1</sup> The fund is operated by the government of Burkina Faso with financial supports by Luxemburg and Sweden. It was established in April, 2013. In 2017, the Fund is offering for the budget amounting approximately 400 million JPY. The participating groups are able to use the fund for reforestation activities.

<sup>2</sup> It is a program assistance by Demark for the five years since 2014. It is composed of the following two programs: i) support for agricultural entrepreneurs and agro-industries; and ii) support for enhancing value chains (filières) from production to processing and sales.

production manuals and planting techniques manuals have been still utilized by seedling producers and planters for their activities.

#### <Financial Aspect>

The government of Burkina Faso has allocated a certain amount of budget on the technical support for seedling production and afforestation activities, but the budget allocated has not been sufficient to deliver trainings for the government officers, the producers and the planters. The budget has been fluctuated year by year due to availability of financial resources.

While the majority of them have so few funds that they cannot continue to run their activity, especially, to obtain fundamental materials such as pots and seeds, some of the seedling producers in the target regions have gained sufficient profits to sustain their production activities.

#### <Evaluation Result>

In light of the above, there is an issue of contract execution between the seedling producers and the planters from the institutional aspect. From the financial aspect, the implementing agency faces an issue of budget for trainings. While some of seedling producers have difficulties to obtain necessary fund for continuation of the activities, some of them have gained profits sufficiently. Therefore, there are some challenges observed from institutional and financial aspects, and the sustainability of the effectiveness through the project is fair.

#### 5 Summary of the Evaluation

The project achieved the Project Purpose and partially achieved the Overall Goal for promoting planned and efficient seedling production and strengthening afforestation activities to contribute to preservation of forest. As for sustainability, since SNPP has been still valid, the seedling production and afforestation activities introduced by the project have been backed up at policy level. While DFR, DREEVCC and CNSF continuously provide technical support, the seedling producers and the planters have sustained the necessary skills and knowledge for well-planned seedling production or effective planting with higher rootage. On the other hand, technical trainings have not been delivered by the government for the government officers, the producers and the planters due to the lack of fund. Also, majority of the producers faced a financial difficulty in pursuing their seedling production activity due to the loss made along the seedling production process. As for efficiency; the project cost slightly exceeded the plan.

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

### III. Recommendations & Lessons Learned

Recommendations for Implementing Agency (MEEVCC, DFR, DREEVCC and CNSF):

- Regular re-training of staff of DFR, DREEVCC and CNSF to cope with ever evolving techniques should be delivered through various projects and programs implemented by the government.
- It is essential to establish a formal framework for discussion and negotiation between seedling producers and planters at municipal level in collaboration with services of MEEVCC in order to improve seedling production plan based on planting demand and to reduce gaps between the actual seedling production and the actual planting activities.

Lessons learned for JICA:

- While the seedling producers trained by the project understand usefulness of the techniques introduced by the project, such as nursery book, majority of them have not been able to practice them due to their limited literacy. It is essential to consider alternative techniques to substitute “nursery book” for the seedling producers with limited literacy in order to broadly disseminate useful practices and to sustain their effects.
- Also, owing to the limited available fund, they have not been able to obtain necessary materials for seedling production in order for quality assurance and efficient production planning, such as pots and seeds. Therefore, at the planning stage, it is necessary to carefully assess capacity and needs of the seedling producers and to incorporate necessary components to establish funding and procurement mechanisms for them to sustainably obtain necessary materials.



Seedling Nursery in Gourcy  
(Zondoma Province, North Region)



Seedling Producer in Yako who built a wall to protect a nursery  
from animals (Passoré Province, North Region)