

Country Name	Project for Improvement of Teaching and Training Capacities of l' École Nationale des Eaux et Forêts (ENEF)
Burkina Faso	

I. Project Outline

Background	In Burkina Faso, the northern half of the country is geographically located in the Sahel region. In the region, a progressive decrease in the forest area has become a major concern. The Government of Burkina Faso has recognized the prevention of desertification and environmental improvement as one of the important national issues and has been engaged in forest and natural resource management as well as prevention of desertification. In 2006, the National Action Plan on Climate Change (Projets du Programme d'Action National d'Adaptation: PANA) was adopted, and there was an urgent need to promote sustainable development in harmony with the conservation of the natural environment.			
Objectives of the Project	To improve teaching and training capacities of the École Nationale des Eaux et Forêts (ENEF), by constructing school facilities, procuring furniture and laboratory equipment, and providing technical assistance on the management of ICT and laboratory equipment, thereby contributing to promotion to prevent deforestation and conserve the natural environment in Burkina Faso.			
Contents of the Project	<ol style="list-style-type: none"> 1. Project Site: Bobo-Dioulasso, Houet province, Hauts-Bassins region 2. Japanese side <ul style="list-style-type: none"> - Construction: a classroom building, laboratory, administration building, auditorium & toilets, sampling rooms, cafeteria & multi-purpose space, dormitories, electric room & generator, and waters supply tower, etc. - Procurement: school furniture and office and laboratory equipment, school bus, 4WD vehicle, etc. - Technical assistance (soft component): the establishment of the management system of ICT and laboratory equipment 3. Burkinabe side: <ul style="list-style-type: none"> - Removal of existing buildings and obstacles - Relocation of a nursery, trimming of grass establishment - Installation of a transformer and main circuit breaker - Procurement of furniture for teachers' dormitory 			
Project Period	E/N Date	December 2, 2010	Completion Date	November 6, 2013 (Handover)
	G/A Date	December 2, 2010		
Project Cost	E/N Grant Limit / G/A Grant Limit : 655 million yen, Actual Grant Amount: 653 million yen			
Executing Agency	Ministry of Environment, Economy and Climate Change (Ministère de l'Environnement, de l'Economie verte et du Changement Climatique : MEEVCC) : it was renamed twice prior to 2016, from the Ministry of Environment and Living Environment (Ministère de l'Environnement et du Cadre de Vie) (2002-2010), and the Ministry of Environment and Sustainable Development (Ministère de l'Environnement et du Développement Durable) (2011-2013) National School of Water and Forest (École Nationale des Eaux et Forêts: ENEF)			
Contracted Agencies	Main Contractor(s): 9 local companies Main Consultant(s): Fukunaga Architects-Engineers Agent: Japan International Cooperation System (JICS)			

II. Result of the Evaluation

1 Relevance
<p><Consistency with the Development Policy of Burkina Faso at the Time of Ex-Ante Evaluation></p> <p>The project was consistent with the development policy of Burkina Faso at the time of the ex-ante evaluation. Since the National Environmental Policy (Politique Nationale de l'Environnement: PNE) was formulated in 2007, sustainable environmental management has been a major issue in the development policy. Furthermore, to realize PNE, the overall goal of the Ten-year Environment and Livelihood Action Plan (Plan Décennal d'Action du Secteur de l'Environnement et du Cadre de Vie: PDA/ECV) was formulated. All activities in the environmental sector should be strategically executed as aligned with the PDA/ECV and/or Three-year Environment and Livelihood Program (Programme Triennal de l'Environnement et du Cadre de Vie: PROTECV). The Capacity building of officials of the Ministère de l'Environnement et du Cadre de Vie through ENEF was one of the three basic pillars in PDA /ECV, as ENEF has been one of the major human resource development institutions in the field of forestry and environment in the country.</p> <p><Consistency with the Development Needs of Burkina Faso at the Time of Ex-Ante Evaluation></p> <p>The project was consistent with the development needs of Burkina Faso at the time of the ex-ante evaluation. Progressive desertification and loss of forest resources were observed in Burkina Faso. Thus, there was a need for trained officers to respond properly to the ever-increasing demand in the field of forestry and the environment. Despite this, the facilities of ENEF were deemed insufficient and overloaded causing serious deterioration of the training environment as the number of students increased fivefold over 7 years prior to the project. Furthermore, as decrepit facilities and equipment were conspicuous, ENEF had difficulty carrying out its curriculums in an effective manner.</p> <p><Consistency with Japan's ODA Policy at the Time of Ex-Ante Evaluation></p> <p>The project was consistent with Japan's ODA policy for Burkina Faso at the time of the ex-ante evaluation. Japan intended to contribute</p>

to the basic needs from the perspective of poverty reduction, as well as cooperation in the fields of environment and climate change such as prevention of desertification in Burkina Faso¹. In light of the severe poverty situation in Burkina Faso, Japan emphasized basic human needs specifically, basic education, water and sanitation, health, and agriculture, and rural development, etc. Furthermore, since the northern half of the country is located in the Sahel region and faces serious desertification problems, it addressed to support environmental promotion through conservation of agricultural land and forests, in the context of desertification prevention.

<Evaluation Result>

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

2 Effectiveness/Impact

<Effectiveness>

The project partially achieved its objectives at the time of ex-post evaluation. The enhancement of the capacity of enrollment was achieved as the number of students/trainees has exceeded the target value since project completion. Also, its educational and training function in ENEF was considered reinforced compared to before the project. It was reported by ENEF that the quality of education and training was indeed improved since the curricula were duly updated and became capable of giving students those courses which are more educationally adapted to the requirements in the current context and challenges of environmental protection. Furthermore, ENEF has become internationally renowned by the augmentation through the project. ENEF started receiving a notable number of students who came across the country and from neighboring African countries such as Niger, Gabon, Congo, and Chad. However, as far as the management capacity for ICT and laboratory work is concerned, which was the main component of the technical assistance of the project, it was deemed ineffective to amply educate students in a self-sustaining manner. They have a legitimate cause for the concern as shown in a dwindling pass rate to enter the advanced course from 100% in 2015 to 95.64% in 2017 and in the number of students per supervisory staff increased seventeen-fold from 2016 to 2017. According to the survey, there was no viable management system of laboratory equipment put in place as planned in the project. Students were not trained to properly use laboratory equipment, due to the absence of a skilled supervisor and no timely replenishment of necessary consumables to conduct lab work.

<Impact>

The project has contributed to the improvement of the technical level of human resources responsible for implementing policies in the environmental sector. The time-series data of MEEVCC trained officers in ENEF show that compared to the number in the 2010 baseline year, the numbers after project completion doubled or were significantly larger since 2014. For example, each number of ENEF trained Inspectors, Supervisors, Assistants of water and forestry was 11, 33, and 57 in 2010, whereas the number increased to 26, 67, 302 respectively at the time of the ex-post evaluation conducted in 2020. By the same token, the number of ENEF-trained Senior Environmental Technicians and Environmental Technical Officers was 12 and 21 in 2010, whereas increased to 34 and 21 in 2020. It is noted, however, that the human resource shortage in the field was not yet solved as much as they would like, mainly due to the other imminent security-related challenges². Regarding the implementation of environmental policies, it was difficult to show which policies ENEF had a direct impact on after project completion to date as there were no clear references to ENEF found at all to date. It is only surmised that the project may have had an implicit impact as ENEF has trained a considerable number of officials in the MEEVCC described above, who may have engaged in the formulation of policies for environmental preservation, etc.

In addition, there was no resettlement and land acquisition by the project so that no ramifications in this regard. However, there was a minor negative impact on the environment regarding waste disposal and treatment during project implementation. According to the administration of ENEF, it was reported that the local community suffered from waste being dumped in the vicinity without any proper treatment. On the other hand, having a new women's dormitory, the project contributed to promoting gender equality by being capable of increasing female admission. ENEF could not accommodate as many of the qualified women as it should, as there was a limited capacity in a dormitory before the project.

<Evaluation Result>

Therefore, the effectiveness/impact of the project is fair.

Quantitative Effects

Indicators	Baseline 2010 Baseline Year (average of 5 years from 2005 to 2009)	Target 2014 1 Year after Completion	Actual						
			2014 1 Year after Completion	2015 2 Years after Completion	2016 3 Years after Completion	2017 4 Years after Completion	2018 5 Years after Completion	2019 6 Years after Completion	2020 7 Years after Completion
The number of students/trainees	Approx. 240	Approx. 500	504	838	1110	1497	1494	1187	874*1

Note 1: The Government issued a decree to reduce the number of recruited staff in each ministry including the environment field in 2017. Also, another decree was issued in 2019 to cancel tuition-free admission for security reasons. These decrees explain the significant decrease in the number in 2020.

Source : ENEF

3 Efficiency

Although the outputs were produced more than the plan, and the project cost was within the plan (ratio against the plan: 99%), the project period exceeded the plan (ratio against the plan: 144%). Therefore, the efficiency of the project is fair.

4 Sustainability

< Institutional/Organizational Aspect>

Under the auspices of the Government of Burkina Faso, ENEF has had an organizational structure to manage the school as the sole

¹ Ministry of Foreign Affairs, "ODA Country Databook" (2010)

² Public officials have been under pressure that they should stay being stationed in the local municipalities to avoid possible terrorist attack. Also, the Government issued a decree in 2017 to reduce the number of public servant recruitments to half its previous level to increase staffing levels to deal with the national security issues.

educational institution specialized in environmental study. Moreover, the “National Environmental Policy” issued by the MEEVCC in 2007 addressed the importance of forestry and environment. It stated that accumulated knowledge and resources in ENEF were deemed to be essential capital assets that need to be reinforced. For this reason, the Government has been determined to retain a twin role of ensuring the quality of education and of creating adequate human resources for this sector. In the policy framework indicated above, the administration, regulation, and budgetary control of O&M of the public education facilities and equipment in this field have fallen under the MEEVCC. Having deployed approximately 45 members in total in 2020, ENEF has been rightly in charge of O&M of equipment through proper usage and daily cleaning. Therefore, the O&M system has remained institutionally unchanged in the foreseeable future. On the other hand, from ENEF’s point of view as an end-user, it is deemed that the O&M has not been sufficiently managed and executed from the perspective of deployment of trained personnel. It was reported that qualified mechanics were not dispatched to check on the equipment regularly. It should also be noted that as there was no staff team designated for the O&M of the equipment, necessary maintenance and repairs were done on an ad hoc basis.

<Technical Aspect>

As stated above, technical assistance for the establishment of the management system of ICT and laboratory equipment was provided in the project. In this regard, the ex-post evaluation survey revealed that the management system of ICT and laboratory equipment was not sufficiently functioning as it was expected. Specifically, regarding the personnel issue, an ICT engineer was on the payroll of ENEF and the technical training was duly given to the engineer at the time of project implementation. He was still in his position at the time of this ex-post evaluation. In his role, he has given training to students on the procured IT equipment and has engaged in basic maintenance of the equipment. However, ENEF has contracted a private company that can provide technical support for more serious technical issues such as repairs when equipment failure occurs. It helped to keep the equipment generally in good condition. It was reported, however, that some technical problems remained in the maintenance of some equipment as most of the current ENEF staff were not directly trained by the project. By and large, ENEF has managed the ICT system by their budget and outsourcing for the maintenance although there are still some issues to be solved. In addition, the newly constructed buildings and a generator have been generally in good condition as ENEF has allocated the fund for the maintenance and repairs.

<Financial Aspect>

Although there is no data available to confirm the balance of payment including the budget amount allocated for ENEF, the O&M costs have not been sufficiently covered by the state budget. It was reported that there has been a problem in securing and maintaining the O&M costs for the equipment and facilities provided by the project. Although there was a legitimate concern in ENEF regarding the recent reduction of the state budget for ENEF, and the suspension of registered entries caused a shortfall in revenue, it has inevitably driven ENEF to seek external supports from potential partners as an alternative. And increasing the number of foreign students has become a managerial option to compensate for the shortfall.

<Current Status of Operation and Maintenance>

According to the ex-post evaluation survey, the building facilities and a generator were generally in good condition except for the water tower. It had not properly worked since project completion so that ENEF built a new water tower on its budget. ENEF also claimed that there was an issue related to the replenishment of consumables and spare parts, although it was ENEF’s disposition by securement of the budget by mutual agreement. Regarding the ICT system equipment, as a result of outsourcing of the maintenance services, it was generally in good condition.

<Evaluation Result>

Some minor problems have been observed in terms of the institutional/organizational, technical, financial aspects. Therefore, the sustainability of the project effects is fair.

5. Summary of the Evaluation

The project partially achieved its objectives to provide a better learning environment in the field of forestry and environment to order to enhance the quality of education in the field of vital concern. As for sustainability, there have remained institutional, technical, and financial issues that need to be systematically improved in terms of O&M. As for efficiency, the project period exceeded the plan.

Considering all of the above points, this project is evaluated to be partially satisfactory

III. Recommendations & Lessons Learned

Recommendations to Executing Agency:

Regarding the recommended areas to be strengthened at ENEF are as follows:

- 1) To train or recruit personnel specialized in the use of acquired equipment and materials.
- 2) To supplement technical equipment essential to the proper functioning of the laboratory.
- 3) To generate income via some school activities (such as pisciculture proposed at a certain time to design ponds for that purpose but being on hold)
- 4) To seek support from other technical or financial partners for the advisable activities mentioned above.

Lessons Learned for JICA:

The fact that no training was provided to teachers who use the provided equipment on a daily basis, and that only short-term technical support was provided to the engineer in charge of maintaining ICT equipment, is considered to be insufficient to ensure sustainability. For future project formulation and implementation, in a case where the technical gap is obvious and their plan to achieve the target is not concrete in the executing agency at the time of project planning, JICA should examine prudently as to how best to ensure the institutional anchoring to achieve the agreed goal of the executing agency in a self-sustaining way over a longer timeframe.



Classroom building



Laboratory benches with microscopes