

Ex-ante Evaluation

1. Name of the Project

Country: The Kingdom of Morocco

Project: Watershed Management Project

(Loan Agreement: March 30, 2007; Loan Amount: 3,165 million yen; Borrower: The Government of the Kingdom of Morocco)

2. Necessity and Relevance of JBIC's Assistance

Morocco lies in arid and semi-arid zones, and of the 9 million ha of forest nationwide, approximately 30,000 ha (official Moroccan government figure) are lost annually not only due to the effects of climate change but also due to human-exerted pressures such as overgrazing. The decline of the forest has advanced soil erosion and brought about a lowering of the soil and water conservation functions. The Government of Morocco has implemented afforestation and dam construction, but even so the decline of the forest is one factor that causes flooding in the cities in the lower part of the watershed. In this country where rainfall is scarce year-round, it is difficult for the forest that has been lost to naturally regenerate, and so the Government of Morocco has positioned forest conservation as well as water and soil conservation as urgent issues.

Haut Commissariat aux Eaux et Forêts et à la lutte contre la Désertification (HCEFLCD), which is in charge of forest management, compiled the National Forest Program (PFN) (1998-2020) as the supreme plan for forest management policy, and this plan sets forth a comprehensive strategy built around “management of forests as a national asset,” “development of areas around forests,” “participatory regional development approach,” and “strengthening of partnerships.” As an action plan in accordance with this strategy, the National Watershed Management Plan (PNABV) (1996) was drawn up to selectively improve 1.5 million ha over 20 years out of the 10 million ha of river basin with particularly significant erosion damage. This project involves one of the most important basins in the PNABV.

In the National Initiative for Human Development (INDH) announced by His Majesty King Mohammed VI in 2005, poverty measures for rural areas are a priority assistance program, and this project, which carries out activities to improve the livelihoods of local residents, is in accordance with that initiative. Furthermore, the implementation of this project falls under the policy matrix of the World Bank's “Water Sector Development Policy Loan” as a project for water resource management, and it is consistent with Morocco's planned water sector development strategy.

In JBIC's current Medium-Term Strategy for Overseas Economic Cooperation Operations (FY2005-2007), “poverty reduction” and “global issues” are mentioned as priority areas, and this project is consistent with “action on environmental issues” which is considered a priority area in assistance to Morocco. Thus, JBIC's assistance for this project is highly necessary and relevant.

3. Project Objectives

The objective of this project is to regenerate forest and improve the living environment of local residents by carrying out development of comprehensive forest conservation, such as afforestation and activities to improve the livelihoods of local residents in the Mellah watershed which lies in the Chaouia-Ouardigha region and the Allal El Fassi Dam upper watershed which lies in the Fes-Boulemane region, thereby contributing to conservation of forest resources, erosion

countermeasures, and poverty alleviation for local residents.

4. Project Description

(1) Target Area

Mellah watershed (Provinces of Settat, Khouribga, Ben Slimane)

Allal El Fassi Dam upper watershed (Provinces of Sefrou and Boulemane)

(2) Project Outline

- (a) Forest conservation activities : afforestation, small-scale check dams, and activities to improve the livelihoods of local residents within the framework of the “Village Action Plan” (Plan de Développement des Douars (PDD))
- (b) Consulting services : assistance for project supervision, monitoring and evaluation, technician training, educational activities for local residents

(3) Total Project Cost/Loan Amount

4,222 million yen (Yen Loan Amount: 3,165 million yen)

(4) Schedule

April 2007 – December 2013 (81 months)

(5) Implementation Structure

- (a) Borrower: The Government of the Kingdom of Morocco
- (b) Executing Agency: Haut Commissariat aux Eaux et Forêts et à la lutte contre la Désertification (HCEFLCD)
- (c) Operation and Maintenance System: Same as (b)

(6) Environmental and Social Consideration

(a) Environmental Effects/Land Acquisition and Resident Relocation

(i) Category: B

(ii) Reason for Categorization

This project is not likely to have significant adverse impact on the environment due to the fact that the project sector and project characteristics are not likely to exert impact and the project is not located in a sensitive area under the “Japan Bank for International Cooperation Guidelines for Confirmation of Environmental and Social Consideration” (established in April 2002). Thus this project is classified as Category B.

(iii) Environmental Permit

An Environmental Impact Assessment (EIA) report is not obligatory under the domestic laws of Morocco.

(iv) Anti-Pollution Measures

Essentially, no use of agricultural chemicals or fertilizer is planned, and no particular adverse impact on the environment is foreseen.

(v) Natural Environment

Because this project will carry out afforestation using primarily native species out of

consideration for the ecosystem, it is expected that adverse impact on the natural environment will be minimal.

(vi) Social Environment

This project will be implemented primarily on government-owned land, and no land acquisition or resident relocation is required.

(vii) Other/Monitoring

The executing agency will carry out monitoring of the afforestation and small-scale erosion control works.

(b) Promotion of Poverty Reduction

Because the percentage of poor population in the project site area exceeds the national average and because it may be assumed that the main beneficiaries of this project will be the poor, this project may be acknowledged as a poverty countermeasure project. Moreover, this project incorporates a sub-component to plan and execute village development activities for specified villages in the project area. By working to reduce the pressure placed on the forest, this sub-component aims to improve the living environment (through basic infrastructure development) and diversify the means for improving livelihoods as a part of the executing agency's granting of incentives to the local residents, and thus to contribute to the poverty alleviation of the local residents.

(c) Promotion of Social Development (e.g. Gender Perspective)

A series of action frameworks, including assistance for residents to organize in order to plan village development activities and assistance in composing and implementing plans using the participatory approach, will be conducted by the executing agency with the support of educational activists (facilitators) hired through the consulting service. At least one woman will be included on each facilitator team to facilitate educational activities for women and the gathering the opinions of women, etc.

(7) Other Important Issues

None

5. Outcome Targets

(1) Evaluation Indicators (Operation and Effect Indicator)

Indicator	Baseline (2006)	Target (2015, 2 years after completion)
Afforestation area (ha) Assisted regeneration / Afforestation for protection	–	Mellah watershed: 1,200/3,400 Allal El Fassi Dam upper watershed: 1,000/2,800
Quantity of planting (seedlings) Assisted regeneration / Afforestation for protection	–	Mellah watershed: 288,000/1,699,000 Allal El Fassi Dam upper watershed: 375,000/1,399,000
Survival Ratio (%) (Afforestation for protection and Assisted regeneration)	Mellah watershed: 70% Allal El Fassi Dam upper watershed: 70%	Mellah watershed: 60% Allal El Fassi Dam upper watershed: 60%
Quantity of check dams (unit) Gabion check dams /	–	To be specified in detailed design

Dry stone check dams		
Establishment of PDD (numbers)	-	Mellah watershed: 8 Allal El Fassi Dam upper watershed: 14
(2) Internal Rate of Return		
Economic Internal Rate of Return (EIRR): 11.1%		
(a) Cost: Project costs (excluding tax), operation and maintenance expenses		
(b) Benefit: Increase in agricultural produce, grassland, and forest products		
(c) Project Life: 50 years		
6. External Risk Factors		
Occurrence of a natural disaster (heavy rains, etc.) on an unplanned scale		
7. Lessons Learned from Findings of Similar Projects Undertaken in the Past		
In projects composed of multiple small-scale components spread over a wide region, because overall implementation supervision is complicated, it has been learned that it is necessary to include measures in the project scope such as assistance from consultants on supervision of implementation. In this project, the executing agency will be obligated to set up a Project Management Unit (Unité de Gestion du Projet (UGP)), and the consulting service will provide assistance to the executing agency.		
8. Plans for Future Evaluation		
(1) Indicators for Future Evaluation		
(a) Afforestation area (ha)		
(b) Quantity of planting (seedlings)		
(c) Survival rate (%)		
(d) Quantity of check dams (unit)		
(e) Establishment of PDD (number)		
(f) Economic internal rate of return (EIRR) (%)		
(2) Timing of Next Evaluation		
After project completion		