

## Ex-ante Evaluation

### **1. Name of the Project**

Country: Kingdom of Morocco

Project: Rural Water Supply Project (III)

(Loan Agreement: 03/28/2008; Loan Amount: 13,615 million yen; Borrower: Office National de l'Eau Potable (ONEP))

### **2. Necessity and Relevance of JBIC's Assistance**

In Morocco, two important issues are environmental consideration so as to ensure sustainable growth and infrastructure development in rural areas, which are particularly behind urban areas. At the same time, Morocco is promoting development of economic infrastructure with the aim of developing export industries and attracting private investment for market integration with Europe in 2010, based on the partnership agreement with the EU. Currently, 96% (2005) of the population in urban areas has access to water supply services; however, there is a disparity between urban and rural areas, with an average of 77% (2006) of the population in rural areas having access to water supply services. Among the rural areas, the percentages are low in Chefchaouen Province, Khenifra Province, and Taounate Province which are in the northern mountainous areas and are disadvantaged by few water sources, poor road access, and widely dispersed villages. In these provinces, the percentages of the population with water supply services are 25%, 34%, and 26%, respectively.

Of the population of Morocco, 14.2% (approximately 4.25 million persons) live in poverty, and of this percentage, 70% are residents of rural areas. The problems facing the poor in both urban and rural areas have been noted as inadequate basic infrastructure such as that required for water supply, electricity, and roads, and also inadequate access to public services such as education and healthcare. Based on the given background, some of the priority topics are correction of the regional disparities and poverty reduction, which are issues for Morocco overall, and improvement of the low percentage of water supply services in rural areas through rural development.

In its Economic and Social Development Plan (2000–2004), the Moroccan government advocated promotion of policies to (1) remedy the disparity between regions through rural development and (2) address and remedy the poverty problem, human resources development, and social disparities. The Moroccan government currently continues to maintain this policy. Moreover, the Moroccan government prepared the Water Supply Program for Rural Populations (PAGER) in 1995 to urgently promote water pipe installation with the objective of improving the living environment of the populace and improving the environment and public sanitation, etc. The plan's aim was to raise the percentage of the population with water services in rural areas to 92% by providing water to 12.3 million persons in 23,500 villages by 2007. However, with water supply installed for 10 million persons in about 17,000 villages as of the end of 2006, completion during 2007 would have been difficult, and so the plan is to continue installation of water supply services in rural areas in 2008 and thereafter. ONEP, which is the executing agency for PAGER, plans to invest a total of 5.9 billion dirham (approximately 82.6 billion yen) in the rural water supply area during the four years from 2006 to 2009 and is already installing water supply services beginning with areas which are the most mature and where water supply is most urgently needed. Of the areas without water supply services, this project focuses on communes, where the percentage of the population with water supply services

is particularly low and where a large percentage of the population lives in poverty.

The Japan Bank for International Cooperation (JBIC) designates “infrastructure development for sustainable growth” and “assistance for poverty reduction” as priority areas in its Medium-Term Strategy for Overseas Economic Cooperation Operations (FY2005–2007) and places emphasis on assistance for poverty reduction through economic growth via economic and social infrastructure installation, including water supply-related facilities. Thus, JBIC’s assistance for this project is highly necessary and relevant. Furthermore, JBIC approved the Rural Water Supply Project (I) in 2000 and the Rural Water Supply Project (II) in 2000 which assist the installation of water supply facilities in three provinces (Moulay Yacoub Province, Safi Province, Tiznit Province) and four provinces (Azilal Province, Khouribga Province, Beni Mellal Province, Khenifra Province), respectively.

### **3. Project Objectives**

The project’s objective is to provide safe water supply in Chefchaouen Province, Khenifra Province, and Taounate Province, which are located in northern Morocco, by installing water supply facilities in those provinces, and thereby contribute to the improvement of the living environment of the residents, including the poor population, in those regions.

### **4. Project Description**

#### (1) Target Area

Chefchaouen Province, Khenifra Province, and Taounate Province

#### (2) Project Outline

(a) Installation of water supply facilities

(b) Consulting service (review of detailed designs, bidding assistance, works supervision, and social mobilization activities for regional inhabitants, etc.)

#### (3) Total Project Cost / Loan Amount

16,100 million yen (Yen Loan Amount: 13,615 million yen)

#### (4) Schedule

May 2008 – June 2013 (62 months)

The project is defined as being completed when the guarantee period (1 year) expires.

#### (5) Implementation Structure

(a) Borrower: Office National de l’Eau Potable (ONEP)

(b) Guarantor: The Government of the Kingdom of Morocco

(c) Executing Agency: Same as (a)

(d) Operation and Maintenance System: Same as (a)

#### (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 Considerations” (established in April 2002). Thus, this project is classified as Category B.

(iii) Environmental Permit: Preparation of an Environmental Impact Assessment (EIA) for this project is not obligatory under Moroccan domestic law, but an EIA is planned for preparation by May 2008.

(iv) Anti-Pollution Measures: The sludge produced by the operation of the facilities will be dried and disposed appropriately as waste. Construction will be implemented with consideration for noise, vibration and air pollution.

(v) Natural Environment: The project area is not in or near areas that are sensitive to impact such as national parks, and so undesirable impact on the natural environment is assumed to be minimal.

(vi) Social Environment: The project entails land acquisition of 169.5 ha, and steps for acquisition are being taken in accordance with Morocco’s domestic procedures. Furthermore, the project will involve no resident relocation.

(vii) Other/Monitoring: ONEP will monitor the quality of the water, etc.

(b) Promotion of Poverty Reduction: Before newly installing public spigots, ONEP conducted educational activities concerning operation and maintenance methods of public spigots for public spigot managers and irrigation associations as well as concerning collection of water bills and methods of using public spigots for residents of the beneficiary villages. Because the poverty ratio among beneficiaries of this project (15.4%) exceeds the national average (14.2%), the project meets the requirements of a poverty countermeasure loan. From the standpoint of securing benefits for the poor population, ONEP’s first objective is to install public spigots which are operated and maintained by each commune. For this, ONEP maintains that it is important for residents in the beneficiary villages to be thoroughly informed concerning the project implementation, including the collection of water bills. Moreover, in the event that the switch is made from public spigots to individual house connections in the future, ONEP is studying the introduction of an installment payment system (branchement social) for beneficiaries with low ability to pay, and so the project is expected to contribute to poverty alleviation.

(c) Promotion of Social Development (gender perspective, measure for infectious diseases including AIDS, participatory development, consideration for persons with disabilities, etc.): The project is expected to raise the income of women and the school attendance rate of children by lessening the degree of water-hauling labor for women and children, to promote employment by establishing the post of manager for the public spigot, and to reduce infectious water-borne diseases.

(7) Other Important Issues: None

## **5. Outcome Targets**

(1) Evaluation Indicators (Operation and Effect Indicators)

Indicator		Baseline* (2007)	Target (2014, one year after completion)
Chefchaouen Province	Population served (persons)	N/A	93,500
	Villages served (villages)	N/A	150
	Amount of water supply (m <sup>3</sup> /day)	N/A	5,700
	Percentage of population served (%)	N/A	90
	Rate of facility utilization (%)	N/A	80
Khenifra Province	Population served (persons)	N/A	98,100
	Villages served (villages)	N/A	67
	Amount of water supply (m <sup>3</sup> /day)	N/A	7,700
	Percentage of population served (%)	N/A	90
	Rate of facility utilization (%)	N/A	80
Taounate Province	Population served (persons)	N/A	51,300
	Villages served (villages)	N/A	39
	Amount of water supply (m <sup>3</sup> /day)	N/A	3,000
	Percentage of population served (%)	N/A	90
	Rate of facility utilization (%)	N/A	80

\*As of 2007, there was a water supply system using wells, etc., but because there was no ONEP water supply system in the target areas, no baselines exist.

(2) Number of Beneficiaries

241,000 persons (population of the beneficiary villages based on the 2004 national census.)

(3) Internal Rate of Return (Financial and Economic Internal Rate of Return)

Based on the following premises, the economic internal rate of return (EIRR) is 13.5%.

(a) Cost: Project cost, operation and maintenance expenses (excluding taxes)

(b) Benefit: Revenue on water supply, labor-saving due to lessening the degree of water-hauling labor

(c) Project Life: 40 years

**6. External Risk Factors**

None

## **7. Lessons Learned from Findings of Similar Projects Undertaken in the Past**

In ex-post evaluations of previous water supply projects in Morocco, it was stated, “Because changes in the project plan require additional procedures and lead to delays in the project, it is desirable to have the feasibility study completed at the time of the appraisal.” JBIC is repeatedly conducting consultations with the executing agency concerning the state of implementation of the feasibility study (F/S) and detailed design (D/D), and JBIC judges that no large changes in the project plan will occur that would lead to delays in project implementation.

In the ex-post evaluations of similar projects in other countries in the past, it was stated, “In decentralized projects, it is necessary to consider promotion of the capacity for autonomous development at the community administrative level. To boost the ownership of facility users, explanation at the project planning stage concerning the cost and benefits of the project, including explanation of participation in and responsibility toward the facilities and the limited capacity of the facilities, is indispensable. Moreover, through this, it is possible to rationally judge whether or not the local residents accept the project.” Therefore, this project plans to adequately secure the understanding of the local residents by conducting educational activities in advance through the consulting service.

## **8. Plans for Future Evaluation**

### **(1) Indicators for Future Evaluation**

- (a) Population served (persons)
- (b) Villages served (villages)
- (c) Amount of water supply (m<sup>3</sup>/day)
- (d) Percentage of population served (%)
- (e) Rate of facility utilization (%)
- (d) Economic internal rate of return (%)

### **(2) Timing of Next Evaluation**

One year after completion of the project