

Ex-ante Evaluation

1. Name of the Project
Country: The Republic of Maldives Project: Maldives Tsunami Reconstruction Project (Loan Agreement: 5 July, 2006; Loan Amount: ¥2,733 million; Borrower: The Government of the Republic of Maldives)
2. Necessity and Relevance of JBIC Assistance
<p>Maldives suffered an enormous amount of damage due to the tsunami caused by the earthquake off the coast of the Indonesian island of Sumatra on December 26, 2004. According to the results of the reconstruction needs assessment conducted by the World Bank, the Asian Development Bank, and the UN (in which JBIC also participated) in January through February 2005, total damage amounted to 62% of GDP (US\$470 million), and it is expected that the assistance required for reconstruction will be US\$406 million over three years (of which US\$304 million will be public assistance). In particular, in addition to housing construction for the affected people, it is ascertained that there is a great need for assistance with regard to water supply and sewerage, transportation (chiefly port and harbor), education, and so forth. Furthermore, based on the aforementioned needs assessment, a National Recovery and Reconstruction Plan (totaling approximately US\$375 million) was drawn up by the Government of Maldives in March 2005.</p> <p>Although yen loans have not previously been offered to Maldives, the total amount of assistance pledged by donor countries and agencies in response to the massive reconstruction assistance needs (as of December 2005) comes to approximately US\$262 million. In particular, with a large shortfall in assistance for transportation (port and harbor), and water supply/sewerage, the Maldives Government has repeatedly pledged its desire for yen loan assistance in these areas.</p> <p>Furthermore, with “Assistance for Global Issues and Peace-building,” which includes medium- to long-term perspectives of disaster reconstruction and re-development, as well as prevention of recurrence, being cited as one of the priority areas in JBIC’s Medium-Term Strategy for Overseas Economic Cooperation Operations, the implementation of this project is in accordance with the strategy. Therefore, the level of necessity and relevance of JBIC assistance is high.</p>
3. Project Objectives
The Project aims to provide efficient transportation of goods and people and reliable sewerage system by reconstructing a number of small infrastructure in port and harbor, and sewerage sectors damaged by the tsunami in the aftermath of the earthquake off the coast of Sumatra in December 2004, thereby contributing to improving the living conditions of the affected people, and economic recovery in Maldives.
4. Project Description
(1) Target Area All areas of Maldives (2) Project Outline 1. Reconstruction of port and harbor facilities 2. Reconstruction of sewerage facilities

3. Consulting services

(3) Total Project Cost/Loan Amount

¥3,252 million (Yen Loan Amount: ¥2,733 million)

(4) Schedule

May 2006 - November 2009 (43 months in total)

(5) Implementation Structure

1. Borrower: The Government of the Republic of Maldives

2. Executing Agency: Department of External Resources, Ministry of Foreign Affairs (The Ministry of Construction and Public Infrastructure will implement port and harbor reconstruction, while sewerage reconstruction will be implemented by the Ministry of Environment, Energy and Water.)

3. Operation and Maintenance System: While the day-to-day operation and maintenance of both the port and harbor, and sewerage are to be carried out by the Island Development Committee, the ministries will bear responsibility for operation and maintenance, and in addition to carrying out monitoring, and technical and financial assistance, will be directly responsible for large-scale repairs.

(6) Environmental and Social Considerations

1. Environmental Effects/ Land Acquisition and Resident Relocation

(a) Category: B

(b) Reason for Categorization

In view of the sector characteristics, project characteristics, and regional characteristics laid out in the "JBIC Guidelines for Confirmation of Environmental and Social Considerations" (formulated April 2002), due to the undesirable effects on the environment being judged not to be significant, the project falls into Category B.

(c) Environmental Permit

In accordance with the Maldives legal system, following the detailed designs and selection of a contractor, the Ministry of Environment, Energy and Water examines a screening form drawn up by the contractor, and after having carried out an environmental study if necessary, the Environmental Approval is acquired. In this project, with the assistance of consultants, the ministries will carry out the necessary procedures, and will acquire the Environmental Approval before commencing contractor selection procedures.

(d) Anti-Pollution Measures

An appropriate method will be adopted to prevent the diffusion of pollution when dredging and excavation works are carried out in the port and harbor. Furthermore, as it is expected that the level of sewerage water treatment will be below international standards, it is not anticipated that there will be any particular effect on water quality.

(e) Natural Environment: The aim of this project is the reconstruction of facilities that were destroyed by the tsunami, and the project area and its surrounding areas do not belong to nature conservation areas. Furthermore, as there are no coral reefs in the vicinity of the port and harbor, it is not anticipated that there will be a major adverse effect on the natural environment.

(f) Social Environment

It is not expected that there will be a need for land acquisition and relocation of residents due to this project.

(g) Others/Monitoring: Executing agencies etc. will conduct monitoring of water quality while the dredging works are underway, discharged water quality at sewerage

facilities, and groundwater quality.

2. Promotion of Poverty Reduction

None in particular

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

At the detailed design stage, with the assistance of consultants and after consultation with local residents, the consent of the Island Development Committee regarding operation and maintenance methods is to be obtained. Furthermore, by employing local people affected by the disaster on construction works, the improvement of livelihoods and the acquisition of the technical skills necessary for operation and maintenance are assisted.

(7) Other Important Issues

This project is formed in consideration of the Urgent Development Study implemented by the Japan International Cooperation Agency. With regard to sewerage component, a pilot project which has been carried out by the Government of Japan under the non-project grant aid will be expanded to other islands.

5. Outcome Targets

(1) Evaluation Indicator (Operation and Effect Indicator)

1. Port and harbor

Indicators	Target (2011 [2 years after completion of project])
Number of vessels entering port and harbor per week	310
Funadhoo	434
Maayafushi	420
Male (Northern quay wall)	352
Dhiyamigili	678
Isdhoo (Isdhoo harbor)	229
Isdhoo (Isdhoo-Kalaidhoo harbor)	372
Fonadhoo	431
Darndu	

2. Sewerage

Indicator	Target (2011 [2 years after completion of project])
Population Treated (people)	4,800
Number of households connected to sewerage system	730
Released BOD concentration (mg/l)	Below 30
Percentage of Population Served (%) (project target area)	100

(Note) Due to the current situation, in which facilities have been destroyed by the tsunami, a baseline will not be established.

(2) Internal Rate of Return

Internal rate of return is not calculated in disaster reconstruction projects.

6. External Risk Factors

Tardiness in assistance for urgent needs arising from delays in procedures on the part of the Maldives Government, due to the fact that this is the first ODA loan to Maldives

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

In order to supervise projects made up of a large number of small-scale components, extending across a wide area, from ex-post evaluations of previous similar regional decentralization-type projects, the lesson has been learned that it is effective to have working groups which continue activities in a steady and flexible way. Based on this, in this project, project implementation teams will be formed from ministries related to the project, under which consultants will allocate human resources to each island, and conduct project supervision.

8. Plans for Future Evaluation

(1) Indicators for Future Evaluation

(Port and harbor)

1. Number of vessels entering port and harbor per week

(Sewerage)

1. Population treated (people)
2. Number of households connected to sewerage system
3. Released BOD concentration (mg/l)
4. Percentage of Population Served (%) (project target area)

(2) Timing of Next Evaluation

After project completion