Ex-ante Evaluation

1. Name of the Project

Country: The Republic of Indonesia
Project: Aceh Reconstruction Project
(Loan Agreement: 03/29/2007, Loan Amount: 11,593 million yen, Borrower: The Republic of Indonesia)

2. Necessity and Relevance of JBIC's Assistance

Indonesia's Nanggroe Aceh Darussalam Province (Aceh Province) and North Sumatra Province (centering on the Nias Island) sustained massive physical and human casualties with the loss of 130,000 lives and damage amounting to a total of US$4.5 billion from the December 2004 and March 2005 earthquakes and tsunamis off the coast of Sumatra. Although an enormous amount of aid was pledged by many countries and donors, there was still a shortfall of about US$1.3 billion as of April 2006. Furthermore, US$4.7 billion committed by donors was not allocated evenly across sectors, leaving some areas including transport and water resources short of the funds required for a full recovery and development.

As a consequence of a 30-year armed conflict between the separatist Free Aceh Movement (GAM) and the National Army, Aceh Province became isolated from the outside world, resulting in a delay in its development and growth, even prior to the earthquake and tsunami disasters. After a peace agreement was signed between the Indonesian government and GAM leadership on August 15, 2005, security in the region improved dramatically. In addition to recovery and reconstruction work from earthquake and tsunami damage, the Indonesian government is also engaging in recovery from the years of conflict. However, current efforts are focused on areas which suffered severe damage from the tsunami, especially in Banda Aceh and the coastal areas. To promote comprehensive reconstruction and development across the entire province from damage sustained not only from the earthquake and the tsunami but also from the long years of conflict, and furthermore to provide support in the establishment of peace in Aceh, there is an urgent need to assist in the development of regional economic activities through rehabilitation and reconstruction of logistic and economic infrastructure.

Japan's "Assistance Plan for Indonesia" (November 2004) states its support for infrastructure development of public utilities (water and sanitation, roads, and electricity, etc.), the improvement of operation and maintenance systems for such public services, and measures to respond to natural disasters from the viewpoint of the development of regional autonomy and regional development in the "creation of a democratic and fair society." Furthermore, it cites promotion of the restoration and reconstruction of infrastructure as an important issue from the viewpoint of establishing peace and stability as Aceh Province fulfills and maintains its political agreement for peace in areas previously affected by conflict. Moreover, in JBIC's current Medium-Term Strategy for Overseas Economic Cooperation Operations (April 2005), assistance to address global-scale problems and establish peace is also cited as a priority area. It also cites as matters of urgency undertaking comprehensive and consistent initiatives implemented in stages not only as emergency assistance (restoration) but also as

medium- to long-term reconstruction and redevelopment along with disaster readiness and protection against damage from earthquakes and tsunamis. The strategy also places emphasis on the establishment of peace as the premise for promoting poverty reduction and sustainable development. In assistance to Indonesia particularly, in addition to proactively undertaking restoration and reconstruction measures in public works infrastructure in areas that suffered damage from the Sumatra earthquake and tsunami, the strategy states its commitment to assistance in the development of infrastructure resistant to disasters to reduce damages in the event further natural disasters occur in the area again. Hence this project is consistent with JBIC's strategy and therefore JBIC's assistance is highly necessary and relevant.

3. Project Objectives

The objective of this project is to promote the economic reconstruction of Aceh Province, which is a disaster area affected by the ravages of the Sumatra earthquake and tsunami and which is also currently making progress in peace following years of conflict, by improving infrastructure in the transport and water resource sectors—in which there has been a shortage of reconstruction and development funds—to a higher standard than the pre-disaster and pre-conflict levels. In this way, the project will contribute to the improvement of the living environment of the residents who suffered from the natural disasters and conflict in the area and will also contribute to regional economic growth and the promotion and establishment of peace.

4. Project Description

(1) Target Area

Nanggroe Aceh Darussalam Province (Aceh Province)

(2) Project Outline

The following restoration and reconstruction sub-projects in the transport and water resources sectors will be carried out:

- Civil engineering works (roads, bridges, ports, irrigation, drainage, flood prevention, etc.)
- Consulting services (design, bidding assistance, construction supervision, etc.)

The subprojects currently anticipated:

- Transportation: New construction of Central Corridor (national highway) of about 64.8km in length between Geumpang and Pameu.
- Water resources: Development of drainage infrastructure in the cities of Banda Aceh and Meulaboh.

For the sub-projects, the executing agency will prepare a business plan comprised of the business scope, cost, schedule, implementation, operation and maintenance framework, internal rate of return, etc., and will implement the sub-projects as they are approved by JBIC.

(3) Total Project Cost/Loan Amount

15,458 million yen (Yen Loan Amount: 11,593 million yen)

(4) Schedule

April 2007 - January 2015 (94 months)

(5) Implementation Structure

(a) Borrower: The Republic of Indonesia

(b) Executing Agency: The Aceh-Ninas Rehabilitation and Reconstruction Agency (BRR) until

April 2009. After May, the respective central government agencies responsible for each sub-project will implement the project works (Directorate General of Highway Construction and Maintenance, Ministry of Public Works: Central Corridor; Directorate General of Housing, Planning, and Urban Development, Ministry of Public Works: drainage works in Banda Aceh and Meulaboh)

(c) Operation and Maintenance System: For the sub-projects currently anticipated, Directorate General of Highway Construction and Maintenance, Ministry of Public Works (Central Corridor); Bureau of Water Resources, Government of Aceh Province and Housing Bureau, City of Banda Aceh (drainage work in Banda Aceh); and Housing Bureau, City of Meulaboh (drainage work in Meulaboh) will undertake the operation and maintenance for each sub-project.

(6) Environmental and Social Considerations

(a) Environmental Effects/Land Acquisition and Resident Relocation

(i) Category: FI

(ii) Reason for Categorization: This project is classified as FI because sub-projects cannot be specified prior to the approval of project financing by JBIC and because sub-projects of this nature are also assumed to have an impact on the environment. Therefore, according to the *JBIC Guidelines for Confirmation of Environmental and Social Considerations* (April 2002), it was classified as FI.

(iii) Other: BRR will receive the assistance of consultants engaged in the project, and the environmental and social impact of individual projects will be confirmed in line with the guidelines of JBIC.

(b) Promotion of Poverty Reduction: This project will promote basic infrastructure development for reconstruction through assistance in the transport and water resource sectors targeting Aceh Province, where the poverty rate is high.

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

None.

(7) Other Important Issues

None.

5. Outcome Targets

(1) Evaluation Indicators (Operation and Effect Indicator): The following indicators are predetermined as the indicators towards the assumed sub-projects and are to be determined adjusting to the approval time of the sub-projects.

Indicator	Reference (pre-disaster)	Baseline (post-disaster)	Target (2 years after completion)
Central Corridor: Annual average of daily traffic volume (cars/day)	-	-	(2017) 1,158
Hours shortened (Pameu-Banda Aceh)	-	About 12	About 8 hours

		hours	
Drainage infrastructure in the city of Banda Aceh: Annual maximum flooded area (ha) Flood time (hours) No. of flooded household (household)	(5 year probability) 118.8ha (2000) 4 hours to 12 days (2002) 1.087 (whole of Aceh, 2000)	 N/A N/A N/A	(2013, 5 year probability) To be established in the future 2 hours (10-15 cm) To be established in the future
Drainage infrastructure in the city of Meulaboh: Annual maximum flooded area (ha) Flood time (hours) No. of flooded household (household)	 N/A N/A N/A	 264.6 (2005) N/A N/A	(2013, 5 year probability) To be established in the future 2 hours (10-15 cm) To be established in the future

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

To be calculated when the sub-projects are decided

6. External Risk Factors

There is a possibility that this project will be affected by delays in projects or failure to go ahead with projects planned by other donors in the area.

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

In the ex-post evaluations of similar past projects, it was learned that the establishment of an implementation system with agencies that have strong decision-making powers at the core is necessary when a number of different agencies are responsible for individual components of the project. Furthermore, continuous monitoring is required when a temporary project executing agency is to implement the management of the project while the operation and maintenance of the completed facilities are to be assumed by another organization. In this project, in view of the fact that the executing organization is to change during the project, and that the executing organization of the project is to be succeeded by a different organization for the operation and maintenance of the project, an executing system and an information-sharing system have been established to enable information-sharing from the stage of project implementation to the operation and maintenance. Therefore, a project management unit comprised of relevant organizations will be established, and project managers from the post-transfer executing agencies (central government agencies) will be dispatched to the pre-transfer agencies (BRR).

8. Plans for Future Evaluation

(1) Indicators for Future Evaluation

- Central Corridor: shortening of travel time required, annual average traffic volume, internal rate of return.
- Drainage work in Banda Aceh city and Meulaboh city: annual maximum flooded area (km^2), number of flooded households (households), flood time (hours), number of annual reductions in flood damage (times), internal rate of return.

(2) Timing of Next Evaluation

After project completion.