

Ex-ante Evaluation

1. Name of the Project

Country: The Republic of Indonesia

Project: National Geo-Spatial Data Infrastructure Development Project

(Loan Agreement: 03/29/2007, Loan Amount: 6,373 million yen, Borrower: The Republic of Indonesia)

2. Necessity and Relevance of JBIC's Assistance

Indonesia has already completed collection of national basic map data for 250,000:1 and 1,000,000:1 scale maps. However, the basic data for the 10,000:1 to 50,000:1 scale maps (maps which include basic spatial data including inhabitation, traffic, vegetation, rivers, contour lines, administrative boundaries, geographical names, etc.; hereafter, "basic map data") of Sumatra, Papua, Maluku and other regions—which can be used by related government agencies for management and development of natural resources, conservation of the environment, and establishing regional development plans by the local government—is not complete. Sumatra in particular is growing at an especially rapid pace and there is an urgent need for developing basic map data which is absolutely essential for proceeding with appropriate development.

In its National Medium Term Development Plan (Rencana Pembangunan Jangka Menengah Nasional: RPJM), the Government of Indonesia indicated that in the past, failure to utilize basic map data when undertaking regional development and to coordinate development between sectors and regions resulted in deterioration of the environment and inappropriate use of natural resources.

Furthermore, a number of government and research organizations have individually produced and maintained map data which superimposed spatial information from various industries and research fields onto the basic map data (hereafter "thematic map data"), but effective information sharing has not been part of this process. To avoid duplication in investment of work and money, development of a network system that enables the sharing of basic map data and thematic map data (hereafter "national geo-spatial data") is becoming a pressing issue.

Japan's "Assistance Plan for Indonesia" (November 2004) cites the "creation of a democratic and fair society" as a priority area and an important subject, and states Japan's commitment to actively assist in the improvement of governance, including more efficient public administration. Furthermore, JBIC's Medium-term Strategy for overseas Economic Cooperation Operations (April 2005), earmarks development of infrastructure for sustainable growth as a priority area and places emphasis on providing assistance in the establishment of efficient public administration systems through the utilization of IT.

Therefore, JBIC's assistance is highly necessary and relevant.

3. Project Objectives

The objectives of this project are to make administrative work more efficient and sophisticated through the utilization of national geo-spatial data, to avoid duplication in work and investment by sharing this data, and to establish regional development plans at the provincial level utilizing national geo-spatial data by developing basic map data of Sumatra, establishing a network system for sharing national geo-spatial data, and providing assistance in the establishment of efficient regional development plans through the utilization of this system. By achieving these objectives, the project

will contribute to the development of the national and regional economy, improvement in governance, and appropriate management and development of natural resources and environmental conservation.

4. Project Description

(1) Target Area: the island of Sumatra and some other areas (assistance in the formulation of a regional development plan).

(2) Project Outline

The following will be implemented to develop basic map data of Sumatra and to promote the effective utilization of national geo-spatial data:

- (a) Development of basic map data (acquisition and preparation of basic map data).
- (b) Establishment of a network system (strengthening of the data center, establishment of a back-up center and a network, conducting training, construction of a database for regional development, etc.).
- (c) Consulting services (assistance in bidding, construction supervision, assistance in establishing regional development plans including the preparation of regional development guidelines).

(3) Total Project Cost/Loan Amount

7,520 million yen (Yen Loan Amount: 6,373 million yen)

(4) Schedule

March 2007 - June 2014 (88 months)

The project shall be completed at the end of the guaranteed period.

(5) Implementation Structure

- (a) Borrower: The Republic of Indonesia
- (b) Executing Agency: The National Coordinating Agency for Surveys and Mapping (BAKOSURTANAL)
- (c) Operation and Maintenance System: BAKOSURTANAL for the basic map data of Sumatra, BAKOSURTANAL and relevant organizations for the network system, and the respective provinces for assistance in formulating regional development plans will undertake operation and maintenance.

(6) Environmental and Social Considerations

(a) Environmental Effects/Land Acquisition and Resident Relocation

- (i) Category: C
- (ii) Reason for Categorization

This project is classified as category C because it does not include projects in sensitive sectors or with sensitive characteristics, and does not take place in sensitive areas under the “Japan Bank for International Cooperation Guidelines for Confirmation of Environmental and Social Considerations” (April 2002). Therefore, adverse impact on the environment is considered to be minimal.

(b) Promotion of Poverty Reduction: None.

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

This project will contribute to promoting the utilization and sharing of national geo-spatial data and to establishing effective and efficient development plans by the national and local administrative organizations as assistance in the decentralization of authority, and therefore will assist in promoting good governance.

(7) Other Important Issues: None.

5. Outcome Targets

(1) Evaluation Indicators (Operation and Effect Indicator)

Indicator (unit)	Baseline (2006)	Target (2016, 2 years after completion)
No. of requests to obtain basic map data developed during the project		2,000
Number of newly recorded metadata* in the network system developed by the project	5,000	20,000

* Metadata: text data which describes attribute information pertaining to national geo-spatial data (target areas, scale size, creator, date created, etc.) and which is utilized when searching for national geo-spatial data.

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

Quantitative analysis of EIRR and FIRR is difficult because this project is aimed at contributing to the formulation of plans for development projects rather than generating direct benefits.

6. External Risk Factors

Development of Internet access which will be used by local governments in searching and acquiring national geo-spatial data from BAKOSURTANAL.

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

In ex-post evaluations of similar projects in the past, it was learned that it is important to coordinate with the relevant organizations beforehand so that basic map data which has been developed is fully utilized, and to take into consideration technological advances in system equipment. Taking into account such lessons learned, a mutual consultation system among relevant organizations will be established at the time of the implementation of this project. In addition, at an appropriate time the system equipment will be established and training targeting the system users and administrators will be undertaken.

8. Plans for Future Evaluation

(1) Indicators for Future Evaluation

- (a) No. of requests for acquisition of basic map data developed by this project
- (b) No. of metadata items newly recorded in the network system developed by this project

(2) Timing of Next Evaluation

After project completion.