

Ex-ante Evaluation

1. Name of the Project

Country: The Republic of Indonesia

Project: Climate Change Program Loan

Loan Agreement: September 2, 2008

Loan Amount: 30,768 million yen

Borrower: The Government of the Republic of Indonesia

2. Necessity and Relevance of JBIC's Assistance

Indonesia is the world's third largest emitter of greenhouse gases after China and the United States through the combination of emissions of carbon dioxide caused by loss of forests and by devastation of peatlands. Even when those emissions relating to forests are not included, the country is still the largest emitter in the Association of Southeast Asian Nations (ASEAN) (and the 11th largest in the world as a whole). In addition, emissions of greenhouse gases from energy/industrial sectors are increasing due to its increasing energy demands in line with its economic growth, and the proactive utilization of coal in the wake of rising crude oil prices. Therefore, suppressing the reduction in forest coverage, developing renewable energy and promoting energy saving are urgent tasks for suppressing greenhouse gas emissions in the future.

Furthermore, with changes in the pattern of rainfall throughout the year becoming more pronounced, which is considered to be an effect of global warming, it is predicted that climate change risks in Indonesia will increase, particularly in the region south of the equator, in the form of the lengthening of the dry season, a fall in the volume of rainfall, the shortening of the rainy season and more intense torrential rainfall. There are concerns that the intensification of severity and an increase in the frequency of disaster accompanying future climate change could invite social and economic losses such as economic stagnation and an increase in poverty, and could become an important risk factor threatening the sustainable development of the country. Therefore, it is essential to raise the management capabilities of rivers and water/facilities for irrigation use in order to suppress damage from disaster which might increase due to the effects of global warming.

This project is composed of the following three priority areas, and aims to promote the implementation of policy actions in each of the priority areas, as efforts toward climate change countermeasures in Indonesia. (1) mitigation (protection of forests, diversification of energy sources, promotion of energy efficiency etc). (2) adaptation (establishment of organizations/systems for integrated water management, improving access to water supply and sewerage, strengthening irrigation management and agricultural leadership structures etc.) (3) cross-cutting issues across different fields (establishment of adjustment frameworks relating to the implementation of countermeasures for climate change, mainstreaming countermeasures against climate change into national development plans, promoting the formulation of clean development mechanism (CDM) projects, strengthening climate observation structures etc.). In addition, the policy matrix of this project is compiled from the specific policy actions of the first three years of the long-term National Action Plan Addressing Climate Change of the Government of Indonesia covering the period up to

2050. This project follows the lines of the National Action Plan, but quantifies it as far as possible and is thus more concrete, and will work to strengthen the Government of Indonesia's adjustment functions relating to climate change.

In the Government of Japan's Country Assistance Program for Indonesia (November 2004), assistance for protection of the environment is set out in "the creation of a democratic and fair society," one of the Program's priority areas, and this project is consistent with this direction. This project is thus highly necessary and relevant.

3. Project Objectives

Through evaluating the performance of the Government of Indonesia's string of policies relating to climate change, and assisting policy reform in the country, the project aims to (1) alleviate global warming through the absorption of greenhouse gases and suppressing emissions, (2) strengthen adaptation relating to the negative effects of climate change, and (3) respond to cross-lateral issues across different fields relating to climate change, thus contributing to the reduction of risks accompanying climate change.

4. Project Description

(1) Project outline

In order to support the policy and systematic aspects of climate change countermeasures in Indonesia, this project will work to promote the implementation of policy actions in the following three areas, which are to be implemented over the period from 2007 to 2009. (1) To alleviate global warming through the absorption of greenhouse gases and suppressing emissions. (2) To strengthen adaptation relating to the negative effects of climate change. (3) To respond to cross-lateral issues across different fields relating to climate change. This project will implement the following actions as countermeasures relating to climate change (the table includes only major actions).

Item	Actions achieved in 2007	Future actions (2008, 2009)
Alleviate global warming through the absorption of greenhouse gases and suppressing emissions (forests/energy)	<ul style="list-style-type: none"> ○ Building the concept of countermeasures in response to Reduced Emissions from Deforestation and Degradation in Developing Countries (REDD) ○ Institution of energy laws aimed at the promotion of the development of renewable energy ○ Implementation of energy audit and introduction of systems of labeling for energy-saving products 	<ul style="list-style-type: none"> ○ Establishment of an implementation plan for the implementation of a REDD pilot project ○ Creation and institution of government regulations concerning policies for the promotion of the development of renewable energy ○ Establishment of sectoral road maps for reduction of carbon dioxide emissions through energy saving
Strengthen adaptation capabilities relating to the	<ul style="list-style-type: none"> ○ Creation of government regulations and presidential 	<ul style="list-style-type: none"> ○ Institution of government regulations and presidential

negative effects of climate change (water resources/irrigation/agriculture etc.)	decrees aimed at integrated watershed management <ul style="list-style-type: none"> ○ Establishment of ministerial decrees relating to management of water for irrigation use and maintenance/management of facilities ○ Establishment of agricultural leadership and research and development structures to respond to climate change 	decrees aimed at integrated watershed management <ul style="list-style-type: none"> ○ Strengthening of structures for management of water for irrigation use and maintenance/management of facilities ○ Implementation of agricultural leadership programs to respond to climate change
Respond to cross-lateral issues across different fields relating to climate change	<ul style="list-style-type: none"> ○ Establishment of a national action plan relating to climate change ○ Formulation and approval of clean development mechanisms ○ Introduction of observation facilities aimed at strengthening climate observation structures 	<ul style="list-style-type: none"> ○ Reflection of climate change policies in national development plans ○ Increase in cases of approval of CDM projects ○ Enhancement of facilities aimed at strengthening climate observation structures

(2) Total Project Cost/ Loan Amount

Yen Loan Amount : 30,768 million yen (equivalent to US\$300 million)

(3) Implementation Structure

- (a) Borrower: Republic of Indonesia
- (b) Executing Agency: National Development Planning Agency
- (c) Operation and Maintenance System: Same as (b)

(4) Environmental and Social Considerations

(a) Environmental Effects/ Land Acquisition and Resident Relocation

(i) Category: C

(ii) Reason for Categorization

This project is classified under Category C because it is in a sector (financial assistance) which is not predicted to have a particular impact on the environment, and does not correspond to a sector/characteristic likely to have an impact on the environment, or a region which is likely to suffer such impact, as set out in “Japan Bank for International Cooperation Guidelines for Confirmation of Environmental and Social Considerations” (established April 2002).

(b) Promotion of Poverty Reduction

It is anticipated that, based on improvement to policies/systems for countermeasures against climate change, this project will lessen damaging effects on the poor through reducing

vulnerability to climate change and implementation of effective countermeasures against climate change.

(c) Promotion of Social Development (e.g. Gender Perspective, Countermeasures for Infectious Diseases Such as AIDS, Participatory-Style Development, Consideration of the Disabled etc.)
None.

(7) Other Important Issues

None.

5. Outcome Targets

Evaluation Indicators (Operation and Effect Indicators)

Indicator (Unit)	Baseline (2007)	Targets (2009, after project completion)
Alleviate global warming through the absorption of greenhouse gases and suppressing emissions	<ul style="list-style-type: none"> ○ No forest protection incentives/management structures 	<ul style="list-style-type: none"> ○ Establishment of incentives for forest protection and strengthening of management structures for forests through the start of REDD pilot projects
Strengthen adaptation relating to the negative effects of climate change	<ul style="list-style-type: none"> ○ No systems relating to development of renewable energy ○ Insufficient systems aimed at the promotion of energy saving 	<ul style="list-style-type: none"> ○ Establishment of systems relating to the development of renewable energy through private sector investor initiative ○ Promotion of energy saving through the establishment of road maps for each major sector for the reduction of carbon dioxide
Strengthen adaption capabilities relating to climate change	<ul style="list-style-type: none"> ○ No systems relating to river management ○ Deterioration of irrigation facilities etc. due to ineffective management of water for irrigation use and insufficient management for facilities 	<ul style="list-style-type: none"> ○ Establishment of government regulations/plans relating to integrated watershed management ○ Establishment of management of water and facilities for irrigation use, and agricultural leadership structures
Respond to cross-lateral issues across different fields relating to climate change	<ul style="list-style-type: none"> ○ Establishment of a national action plan relating to climate change 	<ul style="list-style-type: none"> ○ Reflection of climate change policies in national development plans

	<ul style="list-style-type: none"> ○ Formulation/approval of CDM projects (13 cases) ○ Installation of climate observation facilities (automatic weather stations at 47 locations, weather radar stations at 7 locations) 	<ul style="list-style-type: none"> ○Continuous formulation/approval of CDM projects ○ Enhancement of climate observation facilities (automatic weather stations at 47 locations, weather radar stations at 10 locations, rain gauges at 31 locations)
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6. External Risk Factors

There is a risk that issues beyond the control of individual branches of government may arise in the improvement of the targeted policies and systems.

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

The lesson has been learned that in policy assistance yen loans such as development policy yen loans, it is important to carry out close exchanges of information with related organizations from the appraisal stage up until supervision. Based on this lesson, it is planned in this project that the Japanese monitoring advisory team will carry out supervision in close partnership with the Government of Indonesia.

8. Plans for Future Evaluation

This project is planned to be evaluated after project completion.