

## Ex-Ante Evaluation (for Japanese ODA Loan)

### 1. Name of the Project

Country:	India
Project:	West Bengal Forest and Biodiversity Conservation Project
Loan Agreement:	March 29, 2012
Loan Amount:	6,371 million yen
Borrower:	The President of India

### 2. Background and Necessity of the Project

#### (1) Current State and Issues of the Forest Sector and the Conservation of Biodiversity in India

India's forest and tree cover ratio stood at 23.8% (2007), which is lower than the global average of 31% (2010). While many people including those living in poverty depend on forest for fodder, fuel and income, the negative impact on forest has been boosted with the huge population growth and as a result, the forests are being degraded (the percentage of open forest is 41.7% (2007)).

In terms of biodiversity conservation, as of March 2009, 4.8% of geographical area the country was designated as protected area, with 99 national parks and 523 wildlife sanctuaries. However, the management plans of these protected areas are not well prepared as they are not based on scientific databases to conserve biodiversity. Therefore, in addition to the vital issue of improving forest and tree cover as well as the forest quality, it is also necessary to strengthen capacity among related agencies to ensure a balanced approach for the sustainable growth of ecosystem.

#### (2) Development Policies for the Forest Sector and the Conservation of Biodiversity in India and the Priority of the Project

The Government of India has outlined a target of increasing India's forest and tree cover ratio by 5% in its Eleventh Five Year Plan (April 2007-March 2012). In addition, the Plan also places an emphasis on participatory Joint Forest Management to ensure sustainable forest management, promotion of activities by the Eco Development Committee (EDC) to ensure wildlife conservation, support for those who rely on the forest for their livelihood to ensure alternative sources of income, and reduction of man-animal conflict. Furthermore, in order to implement sustainable forest management and biodiversity conservation, the Government of India aims to build an information management system and promote trainings for human resources development.

#### (3) Japan and JICA's Policy and Operations in the Forest Sector and the Conservation of Biodiversity in India

The "Poverty Reduction and Environmental Improvement" is one of the prioritized areas in the Country Assistance Program for India by the Government of Japan. Accordingly, JICA has set the "Support for Environment/Climate Change Measures" as a prioritized area. More specifically, JICA will support measures to improve forest cover and quality through restoration of degraded forest, prevent soil degradation and improve soil water retention ability as well as biodiversity conservation for the sake of conservation and sustainable management of natural resources. This Project is consistent with these policies. In terms of Japanese ODA loans given to India, 20 projects totaling 204.6 billion yen (6.4% of the total loan amount) have so far been extended in the forestry sector. JICA Technical Cooperation Project, "Capacity Building of State Forest Training Institutions and SFS Colleges" is being implemented for a projected period of five years from FY2008.

#### (4) Other Donors' Activity

In addition to forest management projects being implemented by the World Bank and the EU, the Global Environmental Facility (GEF) has been involved in supporting the preparation of biodiversity strategy and related action plans of India.

## **(5) Necessity of the Project**

Due to its second highest population density in India, the pressure on forest resources such as illegal felling for firewood and charcoal materials necessary for daily life, is high, and West Bengal has problems concerning both the quantity and quality of forests. Owing to West Bengal's effort to have implemented national and state government forestry projects, the forest cover has been on an upward trend. However, the forest cover rate is still only 17.4% (2007), which is lower than the national average of 23.8%. In addition, improvement of the forests is necessary from the viewpoint of open forest rate. The poverty level is also higher than the national average. Because many poor people still depend on forests in their daily life, it is necessary to manage forests appropriately by promoting JFM and local community development.

West Bengal has various geographical features, ranging from the northern region that includes the Himalayan alpine zone, which has been designated as a biodiversity hot spot (as designated by Conservation International, an international NGO, as an area with high biological diversity that is however is facing a crisis of destruction), to the southern part that faces the Bay of Bengal. West Bengal therefore has a high level of biodiversity and has 25 protected areas (national parks, wildlife sanctuaries etc.). Because there are many endangered species, such as the Indian Elephant and the Bengal Tiger in West Bengal, it is also an important state from the viewpoint of the protection of rare species. However, because conflicts between man and animals such as elephants and tigers are becoming a serious issue, it is necessary to strengthen the system for preventing such man and animal conflicts.

In addition, it is also important to support India's efforts as the host nation of the 11th Conference of the Parties to the Convention on Biological Diversity (COP11), which is scheduled to be held in India in 2012. Therefore, this Project, which aims to enhance the mitigation of and adaptation to climate change, sustainable forest management and biodiversity conservation, is consistent with the Indian Government's development policies and Japan and JICA's aid policies, and it is essential and appropriate for JICA to support the Project.

## **3. Project Description**

### **(1) Project Objective**

The objective of the Project is to improve forest ecosystem, conserve biodiversity and improve livelihood means by undertaking afforestation, regeneration, wildlife management and income generation activities through Joint Forest Management approach, including institutional capacity development, thereby contributing to environmental conservation and harmonized socio-economic development of West Bengal"

### **(2) Project Site/Target Area**

State of West Bengal

### **(3) Project Components**

- 1) Afforestation activities (Afforestation, seedlings etc.)
- 2) Biodiversity conservation activities (Prevention of man and animal conflicts, improvement of the wildlife habitat in protected areas)
- 3) Community development and income generation activities (support for the activities of Joint Forest Management Committee (JFMC), income generation activities, training, etc.)
- 4) Institutional Capacity Development (research activities, maintenance of telecommunications and measuring equipment, training, etc.)
- 5) Consulting services (support for procurement and fund management, etc.)

### **(4) Estimated Project Cost (Loan Amount)**

7.511 million yen (including agreed loan amount: 6,371 million yen)

### **(5) Schedule**

Planned for March 2012 – March 2020 (97 months in total); the Project will be completed when all the activities are completed (March 2020).

**(6) Project Implementation Structure**

- 1) Borrower: The President of India
- 2) Executing Agency: West Bengal Forest Department, Government of West Bengal
- 3) Operation and Maintenance System: West Bengal Forest Department, JFMC, EDC

**(7) Environmental and Social Consideration/Poverty Reduction/Social Development**

- 1) Environmental and Social Considerations
  - (1) Category: FI
  - (2) Reason for the Categorization: This Project is classified as Category FI because the loans are given to financial intermediaries, no sub-projects can be identified before the approval of JICA’s loans (such sub-projects are estimated to have an environmental impact) according to the “JICA Guidelines for Environmental and Social Considerations” (put into effect in April 2010).
  - (3) Other aspects/Monitoring: Given the project’s purpose of carrying out forestation and biodiversity conservation activities and the scale and expected contents of the sub-projects, no sub-projects are expected to have a serious environmental impact. Where necessary, the Forest Department and JFMC/EDC will receive support from consultants for technical assistance to jointly carry out monitoring. It is assumed that no sub-project that falls under Category A is to be carried out.
- 2) Promotion of Poverty Reduction
 

In this Project, the participatory management of forest and protected area and activities for community development and livelihood improvement will be implemented with consideration for the forest dwellers that are highly dependent on forest resources and those in the poverty.
- 3) Promotion of Social Development (gender perspective, measures to prevent the contraction of infectious diseases including HIV/AIDS, participatory development, consideration for persons with disabilities, etc.)
 

In this Project, participatory activities involving local people are carried out with consideration for gender.

**(8) Other Schemes and Collaboration with Other Donors**

In this Project, JICA is planning to collaborate with NGOs in activities for regional development and livelihood improvement.

**(9) Other Important Issues**

Because the purpose of this Project is to carry out forestation activities, this Project contributes to the sequestration of greenhouse gases (GHG). Moreover, because afforestation contributes to the protection of the national land from disasters, it can be considered that this Project also contributes to both the mitigation of and adaptation to climate change. This Project’s effect on the mitigation of climate change (estimated amount of GHG absorption) is about 340,000 tons (in terms of CO<sub>2</sub> equivalent).

<b>4. Targeted Outcomes</b>
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**(1) Quantitative Effects**

- 1) Performance Indicators (Operation and Effect Indicator)

Indicator	Baseline (2011)	Target (2022) [2 years after project completion]
Afforestation area (ha)	–	21,770
Survival rate of planted trees (%)	–	65-80%
Number of protected areas intervened by	–	8

the Project		
Number of JFMCs/EDCs/SHGs established and utilized under the Project(*)	–	600
Number of participants provided with training (persons)	–	60,600
Job creation effect (persons/day)	–	5,548,090

(\*)\*SHGs: Self Help Groups

## 2) Internal Rates of Return

If based on the following preconditions, the economic internal rate of return (EIRR) of the Project is 8.43%.

EIRR

Costs: Project cost (excluding taxes), operating and maintenance costs

Benefits: Revenues from forest products

Project life: 40 years

## (2) Qualitative Effects

Environmental conservation, improvement of the living standards of residents, promotion of women's social participation and economic activities, mitigation of climate change through the sequestration of greenhouse gases, adaptation to climate change through the conservation of national land

## 5. External Factors and Risk Control

Political and economic stagnation/deterioration as well as natural disasters in India and the area surrounding the project sites

## 6. Lessons Learned from Past Projects

### (1) Results of the Evaluation of Similar Projects

From the ex-post evaluation of similar projects in the past, it has been learned that in order to smoothly implement afforestation and forest management by the JFMC, it is important (i) to prepare, in comprehensive and easy-to-understand language, guidelines that indicate the scale of JFM, the basis of the wood-lot selection, the basis for operating JFMCs and a system for getting people to take responsibility, (ii) to implement the project in accordance with those guidelines, and (iii) to plan activities based on the needs of local people.

### (2) Lessons for this Project

Based on the lessons described above, it has been planned that, when afforestation and income generation activities are carried out, the same kind of guidelines will be prepared and attention will be paid so that this Project can be carried out smoothly after prior consultations with local people.

## 7. Plan for Future Evaluation

### (1) Indicators to Be Used

- 1) Afforestation area (ha)
- 2) Survival rate of planted trees (%)
- 3) Number of protected areas intervened by the Project
- 5) Number of JFMCs/EDCs/SHGs established and utilized under the Project
- 6) Number of trainees in training (persons)
- 7) Employment (man/day)
- 8) Economic internal rate of return (EIRR) (%)

**(2) Timing**

Two years after project completion