

Ex-ante Evaluation

1. Name of the Project
Country: India Project: Orissa Forestry Sector Development Project (Loan Agreement: 03/31/2006; Loan Amount: 13,937 million yen; Borrower: The President of India)
2. Necessity and Relevance of JBIC's Assistance
<p>Forest and tree cover in India (2003) is 23.7%, which falls short of the world average of 29.6%. A large number of people, including the poor, depend on forestland for fodder, fuel, and income. The growth of this population and their livestock are causing increasing strains on forest. As a result, the increase in serious degradation of forests and deterioration of the soil and water conservation capacities has led to a vicious cycle. Decrease in the level of the water tables in the forests has led to shortages of irrigation and drinking water in the area, and has exerted pressures on the people living in poverty. This has further increased their dependence on the forests.</p> <p>In the 10th Five Year Plan (April 2002 – March 2007), the Government of India places priority on increasing the forest/tree coverage ratio (25% and 33% in the nation by 2007 and 2012, respectively) and recovering the degraded forests. It is also expected in the above plan that sustainable forest management through the promotion of JFM and support to the people dependent on forests for obtaining alternative means of income will be achieved. The Common Minimum Programme also assigns priority on investment in employment-creating forestry projects.</p> <p>In JBIC's current Medium-Term Strategy for Overseas Economic Cooperation Operations, priority sectors in assistance to India are "Rural Development Benefiting the Poor" and "Environmental Improvement". The assistance to this project conforms to the strategy.</p> <p>The forest cover in the State of Orissa is 48,366 km², but the forest has been degraded. Approximately 42% of the forest is categorized as open forest in which the forest cover ratio is less than 40%. In the State of Orissa's development plan, regeneration of degraded forest is a major topic, and there is a high necessity for this project, which promotes the regeneration of forest. Moreover, Orissa has the highest poverty rate of any state in India, and in addition to the poverty rate, there is particularly a high proportion of scheduled tribes that rely on the forests in this project area. Given such conditions, JBIC's assistance in this project, which promotes the improvement of living standards of impoverished persons together with regeneration of forest, is highly necessary and highly relevant.</p>
3. Project Objectives
The objective of this project is to restore degraded forests and improve the income level of villagers by promoting sustainable forest management including JFM plantation and community/tribal development, thereby improving environment and alleviating poverty.
4. Project Description
(1) Target Area State of Orissa

(2) Project Outline

- (a) Restoration of degraded forests
- (b) Coastal plantation for disaster prevention
- (c) Biodiversity management
- (d) Community development and livelihood improvement activities
- (e) Supporting activities for forest conservation
- (f) Consulting services

(3) Total Project Cost/Loan Amount

16,429 million yen (Yen Loan Amount: 13,937 million yen)

(4) Schedule

April 2006 – March 2013 (84 months)

(5) Implementation Structure

- (a) Borrower: The President of India
- (b) Executing Agency: Forest and Environment Department, Government of Orissa
- (c) Operation and Maintenance System: Same as (b)

(6) Environmental and Social Consideration

(a) Environmental Effects/Land Acquisition and Resident Relocation

(i) Category B

(ii) Reason for Categorization

This project is classified as Category B based on the “Japan Bank for International Cooperation Guidelines for Confirmation of Environmental and Social Considerations” (established April 2002) because it was determined that the project will not have significant undesirable impact on the environment given the characteristics of the sector, the characteristics of the project, and the characteristics of the project area.

(iii) Environmental Permit

The EIA report is not required for the project in India’s relevant rules and regulations.

(iv) Anti-Pollution Measures

The executing agency will issue appropriate guidance when pesticides and fertilizers are used, and no particular adverse impact on the environment is foreseen.

(v) Natural Environment

In this project, afforestation will be conducted using mainly native species, out of consideration for the ecosystem, and it is likely to have minimal adverse impact on the natural environment.

(vi) Social Environment

This project will be implemented in national forests and on private land, etc., selected through community participation for afforestation and will not involve any land acquisition or involuntary resettlement.

(vii) Other/Monitoring

Environmental impacts regarding the afforestation in the project will be monitored jointly by the executing agency and local residents.

(b) Promotion of Poverty Reduction

The percentage of households living below poverty line and of scheduled tribes in the project area is comparatively higher than the rest of the areas in the state. This project is expected to improve the living standards of impoverished persons through its promotion of forest conservation and alternative income generation activities.

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

The project puts into practice Joint Forest Management (JFM) in which local residents form a forest management committee (VSS) and participate in the planning and implementation of afforestation, forest management, and community development, etc. Gender is also taken into consideration, with all adult men and women participating in VSS. Moreover, there are self-help groups (SHGs) composed mainly of women that put into practice activities to improve their livelihoods, such as processing and sale of non-timber forest products.

(7) Other Important Issues

None

5. Outcome Targets

(1) Evaluation Indicators (Operation and Effect Indicator)

Indicator	Target (2015, 2 years after completion)
Afforestation Area (ha)	199,500
Quantity of Planting (numbers)	224,000,000
Survival Rate (%)	After 1 year: 90% After 2 years: 90% (including supplementary afforestation) After 3 years: 70% After 4 years: 65% After 5 years: 60%
Quantity of Complementary Planting (numbers)	294,400,000
Rate of Forest and Tree Cover (%)	Wasteland (0%-10%) to Sparse Trees (10%-40%) Sparse Trees to Dense Forest (40% or above)
Number of VSSs Established	2,250
Number of SHGs Established	4,500
Production of Forest Products (Rs/year)	2012-13: Rs 8,500,000 2013-14: Rs 21,200,000 2014-15: Rs 430,000,000
Increase in Income per Beneficiary Household (%)	10

Job Creation (person days)	22,000,000
Training Lecture Attendees (persons)	33,500

*The baseline for “Increase in Income per Beneficiary Household” will be set after conducting a baseline survey following conclusion of the loan agreement.

(2) Internal Rate of Return (Economic Internal Rate of Return): 15.1%

- (a) Cost: Project cost (excluding tax), operation and maintenance expense
- (b) Benefit: Increase in fuel wood production, increase of water retention capacity, soil erosion prevention, income generation
- (c) Project Life: 40 years

6. External Risk Factors

Economic stagnation/deterioration in India and the surrounding areas of the project as well as natural disasters

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

In the ex-post evaluation of similar projects in the past, it has been learned that, for JFM to operate smoothly, it is necessary to prepare guidelines that indicate, comprehensively and in simple language, the scale of the JFM, criteria for selection of areas to be afforested, operating standards for VSS's, and the system for accountability, etc., and it is necessary to implement the project in accordance with these guidelines. In this project, JFM will be implemented smoothly using micro-plan preparation guidelines and a manual for VSS management prepared by expert consultants.

8. Plans for Future Evaluation

(1) Indicators for Future Evaluation

- (a) Afforestation Area (ha)
- (b) Quantity of Planting (numbers)
- (c) Survival Rate (%)
- (d) Quantity of Complementary Planting (numbers)
- (e) Rate of Forest and Tree Cover (%)
- (f) Number of VSSs Established
- (g) Number of SHGs Established
- (h) Production of Forest Products (Rs/year)
- (i) Increase in Income per Beneficiary Household (%)
- (j) Job Creation (person days)
- (k) Training Lecture Attendees
- (l) Economic Internal Rate of Return (%)

(2) Timing of Next Evaluation
After project completion