Ex-Ante Evaluation (for Japanese ODA Loan)

1. Name of project

Country: India

Project: Odisha Forestry Sector Development Project (Phase 2)

Loan Agreement: March 31, 2017

Loan Amount: 14,512 million yen

Borrower: The President of India

2. Background and Necessity of the Project

(1) Current State and Issues of Forestry Sector Development in India

Since the start of tree planting and other forest conservation activities, the amount of forest land in India has been increasing since the 1990s, and the forest coverage rate was 21.3% in 2015. Despite these efforts, forest degradation has not improved due to illegal or over-logging and other factors, and the ratio of open forest in the forest areas (forest with 10 to 39% tree canopy cover) rose to 42.8% (2015). Many people in the poverty class live around forest areas and depend on the forests for livelihood materials such as animal feed and fuel wood as well as sources of revenue. Degradation of the forests threaten the livelihood of these people and may cause decline in the water source protection, soil conservation, and other functions of forest ecosystems, resulting in floods and other natural disasters or decreased crop harvest due to irrigation water shortages. The situation has become especially pronounced with the recent increase in population, and forest conservation by alleviating the degradation of forests that are closely linked to residents' lives is an urgent task.

Odisha that is the project site for the Odisha Forestry Sector Development Project (Phase 2; below, "the Project") is a state in central eastern India with a population of 41.97 million people. The area of forest land on the Eastern Ghats, central plateaus, and Northern highlands is 50,354 km², accounting for 32.3% of the total area of the state (in 2015) and classified as the state with the richest forests in India. Nevertheless, 43% of the forest land is open forest, and deterioration in the quality of the forests is an issue. An additional issue is that the poverty rate of Odisha is 33% (2011), greatly higher than the national rate of 22% (2011).

In 2006, the Japanese ODA-funded Orissa Forestry Sector Development Project (below, "Phase 1") was launched. (When the project began in 2006, the name of the state was Orissa, but it was changed to Odisha in 2011.) Joint Forest Management (one means of forest management in which the government and residents work together to manage forests; below, "JFM") was implemented, and activities such as afforestation and livelihood improvement support activities were carried out focused primarily on the Joint Forest Management Committee. The composition ratio of open forest in the forest land targeted in Phase 1 was 37.9% in 2009 and decreased to

21.8% in 2015, confirming improvement of forest quality through the project. That said, the composition ratio of open forest in all forest land in the state was 41.7% in 2009 and 43.4% in 2015, showing advancement in forest degradation. Poverty among Scheduled Tribes and lower castes living in forest areas remain a serious issue for the state government.

(2) Development Policies for Forestry Sector Development in India and the Priority of the Program

Forest conservation policies are considered a part of climate control measures in the Green India Mission established by the Indian government in 2014. The purpose is to achieve sustainable forest management and preservation of ecosystems and to have communities around the forests carry out actions against climate change, and the objectives are increasing forest land by 5 million ha in 10 years, improving ecosystem services in 10 million ha through improvement in forest quality, conservation of biodiversity, and protection of water sources, and improving the livelihood of 3 million residents around the forests. Other goals are recognition of the importance of the communities in forest protection activities, capacity building of the Joint Forest Management Committee, and building of an appropriate forest management system through cooperation between residential groups and the government.

Forest and Environment Department, Government of Odisha proposed the Forest Vision 2020 policy to expand and enhance forest land, promote sustainable forest management by strengthening JFM, promote conservation of biodiversity, and help improve the livelihood of the people who reside in forest areas. Under this policy, the Forest and Environment Department also launched Odisha's unique forest conservation activities in the form of carrying forward the results and achievements of Phase 1, in order to further advance sustainable forest management.

In this Project, the results and lessons from Phase 1 are applied and components such as strengthening market access by self help groups (SHGs) carrying out activities to generate income, promoting collaboration among relevant departments and agencies for community development, promoting gender mainstreaming, and adopting community participation-based monitoring methods are incorporated to further advance sustainable management of forests and conservation of biodiversity in areas not targeted in Phase 1 as well as strengthen the livelihood foundation of residents in those areas who depend on forest resources. It is therefore considered a critical project in terms of policies of the government of India and of Odisha.

(3) Japan and JICA's Policy and Operations in India's Forestry Sector

In Japan's Country Assistance Policy for India (March 2016), 'supporting sustainable and inclusive growth' is set as one priority area. The policy states that Japan will carry out programs to increase income to people living in poverty and

provide assistance to the forestry sector to cope with environmental and climate change problems. JICA's Country Analysis Paper for India (March 2012) identified priority areas as afforestation activities, actions for sustainable forest management such as water and soil preservation activities, and assistance in biodiversity conservation to achieve preservation and sustainable use of natural resources as well as assistance with activities to improve the livelihood of local residents who depend on forest resources. This Project is in line with these policies and analysis results. JICA previously received authorization to provide ODA loans to India of the amount of 225.8 billion yen for 23 projects in February 2017.

(4) Other Donors' Activities

The World Bank, Asian Development Bank, Global Environment Facility (GEF), and other donors have been supporting environmental preservation fields, but there is no overlap between their projects and this Project.

(5) Necessity of the Project

This Project is congruent with the development policies of the Indian government, the policies and needs of Odisha, and the assistance policies and analyses of JICA. Moreover, it may contribute to sustainable development goal (SDG) 1 that is to eradicate poverty and goal 15 that is to sustainably manage forests and halt biodiversity loss. Therefore, it is necessary to assist in the implementation of this project.

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3. Project Description

(1) Project Objective

The project will enhance the forest ecosystem along with sustainable livelihood of local people by improving sustainable forest management, sustainable biodiversity conservation and community development support, thereby contributing to harmonization between environmental conservation and socio-economic development in the project area in Odisha.

(2) Project Site/Target Area: Odisha

(3) Project Components

1) Sustainable forest management (e.g. afforestation and forest conservation by JFM, development of nursery, forest farming) (direct management)

2) Sustainable biodiversity conservation (e.g. joint management of protected areas) (direct management)

3) Strengthening of the livelihood foundation for residents (e.g. improving livelihood through income generating activities) (direct management)

4) Capacity building of relevant organizations (e.g. capacity building of Forest and Environment Department staff, development assistance for and capacity building of Joint Forest Management Committees and SHGs) (direct management)

5) Building and enhancing the foundation for forest conservation activities (e.g.

enhancing monitoring and assessment systems, assistance building systems for community participation-based Measurement, Reporting, and Verification (MRV)) (international competitive bidding)

   6) Consulting services (implementation supervision) (short-list method)

(4) Project Cost

  17,104 million yen (Loan amount: 14,512 million yen)

(5) Project Implementation Schedule/Cooperation Period

  Loan: March 2017 to March 2027 (121 months in total). The project completion is defined as the completion of all activities.

(6) Project Implementation Structure

  1) Borrower: The President of India

  2) Executing Agency: Forest and Environment Department, Government of Odisha

  3) Operation and Maintenance System

    Work to develop afforested areas is carried out by the Joint Forest Management Committees that are the target of this Project. The Joint Forest Management Committees jointly accumulate profits by selling forestry products and use expenses necessary for development work. Technical and financial management capacity building of Joint Forest Management Committees is carried out as part of the Project activities. The Forest and Environment Department will continue operating monitoring and assessment systems even after the Project ends. As the Forest and Environment Department carries out monitoring and assessment not only for Phase 1, but also for Odisha's own projects, there are no particular concerns about technical implementation capacity.

(7) Environmental and Social Considerations/Poverty Reduction/Social Development

  1) Environmental and Social Considerations

  ① Category: FI

  ② Reason for Categorization: This Project is classified as Category FI because no sub-projects can be identified before the approval of JICA's loans according to the JICA Guidelines for Environmental and Social Considerations (put into effect in April 2010) and such sub-projects are estimated to have an environmental impact.

  ③ Other/Monitoring: In this Project, the Executing Agency receives assistance from consultants hired with loan funds to categorize the sub-projects based on India's laws and systems as well as the JICA Guidelines for Environmental and Social Considerations and takes the necessary measures for the respective category. No Category A sub-projects are included.

  2) Promotion of Poverty Reduction

  Population ratios of Scheduled Tribes and Scheduled Castes that account for a large ratio of the poverty class were used as one standard for selecting target

sites for this Project and livelihood improvement activities are carried out.

3) Promotion of Social Development (e.g. Gender Perspective, Measures to Prevent Infectious Diseases Including AIDS, Participatory Development, Consideration for Persons with Disabilities, etc.)

The Forest and Environment Department formulated a gender strategy and set an action plan after starting the Project. Gender training is held for Region-level Forest and Environment Department staff and resident organizations to strengthen their gender perspective. Gender training is held for Joint Forest Management Committees and SHGs carrying out income-generating activities, and a gender perspective is incorporated into itemized regional development plans. A monitoring system to quantitatively assess the status implementation of those activities and a system for providing monitoring results as feedback for strategies and action plans are being built.

(8) Collaboration with Other Donors: None in particular.

(9) Other Important Issues: None in particular.

4. Targeted Outcomes

(1) Quantitative Effects

1) Outcomes (operation and effect indicators)

Indicators	Baseline (Recorded in 2017)	Target (2029) [2 years after project completion]
Afforestation area (ha)	0	67,000
Reduction in the ratio of deteriorated forest (%)[*1]	[*2]	15
Ratio of Eco Development Committees (EDCs) participating in pilot activities concerning biodiversity conservation(%)[*3]	None	75
Ratio of increase in household income (%)[*4]	None	15
Ratio of SHGs that accessed financial institutions (%)[*5]	[*2]	20
Number of communities participating in training	0	1,200
Joint Forest Management Committee / EDC	0	3,600
SHG		
Ratio of Joint Forest Management Committees that participated in community participation-based MRV (%)[*6]	None	50

*1 The ratio of forests (dense forests, moderately dense forests, open forests) comprising open forest is defined as the value obtained by subtracting the value for the baseline year (2017) from that of the target year (2029). The ratio of forests (dense forests, moderately dense forests, open forests) comprising open forest for 2017 is based on the results of baseline surveys conducted at the start of the Project.

*2 Value is based on the results of baseline surveys conducted at the start of the Project.

*3 Defined as the actual ratio of participation in biodiversity conservation with the number of EDCs that are the target of biodiversity conservation activities specified and used as a parameter.

*4 The parameter set by baseline surveys is defined as the rate of increase from the target year (2029) value to the baseline year (2017) value.

*5 All 3,600 SHGs targeted in the Project are the parameter, and this value is defined as the ratio of SHGs with access to financial institutions.

*6 With all VSSs in the three forestry areas that were target sites in the pilot project as the parameter, defined as the ratio of the number of VSSs that participated in community participation-based MRV.

    2) Impact: None in particular.

(2) Qualitative Effects

  Preservation of forest ecosystems (including biodiversity), improvement in qualitative standard of living of residents in target areas, improvement in socioeconomic status of women

(3) Internal Rate of Return

    Based on the following preconditions, the economic internal rate of return (EIRR) of the Project is 13.2%. As making profit was not the purpose of this Project, the financial rate of return (FIRR) was not calculated.

    [EIRR]

      Cost: Project cost (excluding tax), O&M cost

      Benefit: Forestry product revenue, livelihood activity revenue,

           fixation of greenhouse gases

      Project Life: 40 years

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5. External Factors and Risk Control

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

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6. Evaluation Results and Lessons Learned from Past Projects

(1) Results of Evaluation of Similar Past Projects

  From the ex-post evaluation of the Gujarat Forestry Development Project, resident participation in forest management after the project ended greatly affected the outcomes of the project. It is therefore necessary to select community activities in target villages that are based on residents' needs and encourage participation by local residents in formulating detailed activity plans. Doing so absolutely requires capacity building of facilitation skills in sire forest managers.

(2) Lessons for the Project

  In this Project, forest preservation activities and livelihood improvement activities will be carried out through resident organizations. However, special efforts must be given to endure the Project is carried out smoothly, such as encouraging active participation by local residents from the planning stage onwards and carrying out workshops to increase community participation-based forest management related skills in sire forest managers of the Executing Agency.

7. Plan for Future Evaluation

(1) Indicators to be Used

    1) Afforestation area (ha)

    2) Reduction in the ratio of deteriorated forest (%)

    3) Ratio of Eco Development Committees (EDCs) participating in pilot activities concerning biodiversity conservation(%)

    4) Ratio of increase in household income (%)

    5) Ratio of SHGs that accessed financial institutions (%)

    6) Number of communities participating in training (Joint Forest Management Committee / EDC, SHG)

    7) Ratio of Joint Forest Management Committees that participated in community participation-based MRV (%)

    8) Economic internal rate of return (EIRR) (%)

(2) Timing

Two years after project completion.

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