

**1. Name of the Project**

Country: India

Project: Uttarakhand Forest Resource Management Project

Loan Agreement: April 11, 2014

Loan Amount: 11,390 million yen

Borrower: The President of India

**2. Background and Necessity of the Project****(1) Current State and Issues of the Forest Sector in India**

India's forest coverage rate stood at 23.81% (2011), 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 41.59% (2011), creating an urgent need to increase forest area and to improve forest quality.

**(2) Development Policies for the Forest Sector in India and the Priority of the Project**

Although the Indian government intended to increase the forest and tree cover ratio by 5% (approximately 16 million ha) in its Eleventh Five-Year Plan period (April 2007 to March 2012), the actual increase was 1.55% (approximately five million ha). The Twelfth Five-Year Plan (April 2012 to March 2017) has set a goal of increasing forest area by five million ha during the targeted period. In addition, the Plan also focuses on enhancing Joint Forest Management for sustainable forests through community participation as well as increasing forest resource productivity, restoring forest that have been damaged by grazing, and establishing nurseries for supporting India's diverse forest resources. In order to observe changes in these sustainable forest resources, the Plan has also aimed to create a periodic monitoring system using satellites.

**(3) Japan and JICA's Policy and Operations in the Forest Sector in India**

"Poverty Reduction and Environmental Improvement" is one of the priority area in Japan's Country Assistance Program for India (May 2006). Accordingly in its Country Analysis Paper (2012), JICA defines environmental conservation and mitigation of climate change as high priority cooperation issues. More specifically, in addition to support for sustainable forest management programs (including restoration of degraded forest, prevention of soil degradation, and improvement of soil water retention ability) and for biodiversity conservation, JICA also recognizes the importance of the livelihood improvement of those who depend on forest resources. This project is consistent with these policies and analysis results. In terms of Japanese ODA loans given to India, 21 projects totaling 210.9 billion yen (5.9% of the total amount of ODA loans amount) have so far been extended in the forest sector. At the same time, JICA is implementing the Technical Cooperation Project "Capacity Building of State Forest Training Institutions and SFS Colleges."

**(4) Other Donors' Activities**

In addition to forest management projects conducted by the World Bank and European Committee (EC), the Global Environmental Facility (GEF) has engaged in supporting the formulation of biodiversity protection plans and related action plans in India. The World Bank is also assisting to restore houses, major public facilities, rural roads, and bridges damaged by the June 2013 floods and landslides in Uttarakhand and to enhance disaster risk management, while the Asian Development Bank is supporting the restoration of major roads, bridges, and urban and tourism infrastructure facilities.

**(5) Necessity of the Project**

Bounded on the north by the Himalayas, the State of Uttarakhand has an area of approximately 53,483 km<sup>2</sup> (about 97% of the combined area of Kyushu and the Shikoku Islands), 45.8% of which is forest. Further, Uttarakhand has a total of 12,000 m<sup>3</sup> in water resources and plays an important role as a water source for states located in downstream regions. The state's population increased 18.8% from 2001 to 2011, which exceeds the average increase (17.6%) for India's population overall. The rural population, the bulk of which is comprised of small-scale farmers and which accounts for 70% of the state's population (10.1 million), nearly doubled during the 30 years from 1981 to 2011. Many of the poor depend on forest resources for their livelihoods. Due to growing demand for firewood resulting from increases in population and livestock in Uttarakhand, there is great pressure on forest resources. 2,000 ha is deforested each year as a result of manmade fires to produce pastureland, in addition to illegal collection of firewood and NTFPs. In Uttarakhand, degraded forests with a low canopy density including open forests are estimated to account for approximately two million ha (approximately 80% of the total forest area in the state); the area of such degraded forests increased 150,000 ha from 2005 to 2011, most of which is thought to be due to the above reasons. Therefore, sustainable forest resource

management is required by improving livelihoods in sustainable way and simultaneously by restoring damaged forest through forest management with community participation.

In Uttarakhand, as a result of torrential downpours in mid-June 2013, floods and landslides occurred on an extraordinary scale, causing an unprecedented mountain disaster in India that affected 4,200 villages mainly in Northern Uttarakhand and left as many as 6,000 dead or missing. In rural regions that were particularly seriously affected by the disaster, infrastructure such as roads and power lines, schools, hospitals, embankments, and other public facilities as well as forests and farmland were severely damaged. Many people, including the impoverished, who are especially vulnerable to natural disasters and other external risks, were devastated. Many of the landslides and slope failures resulting from floods are thought to have occurred or originated in the national forests managed by the Forestry Department. Accordingly, in order to prevent recurrence of such damage in the future, it is necessary for the forest sector to implement water and soil conservation measures as a safeguard against future disasters.

Under these circumstances, this project, which aims to promote sustainable forest management, to improve rural livelihoods, and to prevent disaster damage, is in line with the foreign aid policy of the Government of Japan and JICA. Consequently, JICA's assistance for the Project is highly necessary and relevant.

### **3. Project Description**

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

The objective of the Project is to improve forest ecosystems and to improve the means of livelihood in Uttarakhand by undertaking forest restoration and livelihood improvement activities through community participation as well as institutional capacity development and disaster management, thereby contributing to environmental conservation and to harmonized socio-economic development of Uttarakhand.

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

State of Uttarakhand

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

- 1) Eco-Restoration (forest restoration and moisture conservation, plantation of NTFP, and biodiversity conservation and wildlife management)
- 2) Livelihood Improvements and Community Development (support for the activities of community organizations, marketing of NTFP, eco-tourism, etc.)
- 3) Institutional Capacity Development and Other Supporting Activities (training, research and surveys, facility repairs, development of equipment, etc.)
- 4) Disaster Management (erosion control and sediment disaster mitigation, restoration of forest roads, building evacuation shelters, etc.)
- 5) Consulting Services (support for procurement and fund management)

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

13,477 million yen (Loan Amount: 11,390 million yen)

#### **(5) Project Implementation Schedule**

April 2014 – March 2022 (96 months). The Project will be complete when all programs terminate (March 2022).

#### **(6) Project Implementation Structure**

- 1) Borrower: The President of India
- 2) Executing Agency: Forest Department, Government of Uttarakhand
- 3) Operation and Maintenance System: Forest Department, community organizations, etc.

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

##### **1) Environmental and Social Consideration**

###### **(i) Category: FI**

(ii) 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" (April 2010).

(iii) Other aspects/monitoring: The executing agency for this project categorizes individual sub-projects in accordance with India's legal procedures as well as "JICA's Environmental and Social Consideration Guidelines" (April 2010) in order to formulate appropriate measures for the relevant categories. Although no category A projects are included as sub-projects in the current project, the executing agency will prepare an Scheduled Tribe and Transhumant Plan, if needed, based on the Scheduled Tribe and

Transhumant Planning Framework. The Forest Department and local community organizations jointly conduct monitoring with the support of technical consultants as needed.

- 2) Promotion of Poverty Reduction: In this project, poverty reduction programs are developed for giving consideration to scheduled tribes, scheduled castes, and poor households when preparing detailed activity plans for targeted villages.
- 3) Promotion of Social Development (e.g. Gender Perspective, Measures for Infectious Diseases Including HIV/AIDS, Participatory Development, Consideration for Persons with Disability, etc.): In this project, the community organizations for livelihood improvement are composed primarily of women. Therefore, participatory programs will be implemented based on gender perspectives.

(8) Collaboration with Other Schemes or Donors

JICA plans to collaborate with NGOs in programs for livelihood improvement and community development as well as with the World Bank and Asian Development Bank in disaster management programs.

(9) Other Important Issues

This project is designed to promote forest restoration. As such, it contributes to sequestration of greenhouse gases (GHG) and protecting national lands from disasters by preventing soil degradation and deterioration of moisture conservation functions, thereby helping to mitigate climate change as well as to adapt to such change.

**4. Targeted Outcomes**

(1) Quantitative Effects

1) Performance Indicators (Operation and Effect Indicators)

Indicators	Baseline (2013)	Target (2024) (two years after project completion)
Eco-restoration Area (ha)	-	37,500
Survival Rate of Planted Trees (%) (upon project completion)	-	60
No. of Villages Targeted for Eco-Restoration	-	750
No. of Community Organizations Targeted for Livelihood Improvements	-	1,500
No. of Participants Trained (persons)		Forest Department staff and other project-related persons: 2,060 Community organization members: 13,700

2) Internal Rate of Return

Based on the following assumptions, the Economic Internal Rate of Return (EIRR) for this project has been calculated to be 9.2%. The Financial Internal Rate of Return (FIRR) was not calculated.

EIRR:

Cost: Project cost (excluding disaster management cost and tax), operation and maintenance cost

Benefit: Proceeds from valuable forestry products and from livelihood improvement activities, disaster prevention effects

Project Life: 40 years

(2) Qualitative Effects

Environmental conservation, improvement of residents' living standards, promotion of women's social participation and economic activities, mitigation of climate change and adaptation to such change

**5. External Factors and Risk Control**

Deterioration of the political and economic situation and natural disasters in India and the regions surrounding the project area

**6. Results of Evaluations and Lessons Learned from Past Projects**

(1) Evaluation Results of Similar Projects

According to the results of the ex post evaluation of the Gujarat Forestry Development Project in India and other similar projects as well as the findings of the Forest Sector Survey conducted in FY2011, project effects are greatly affected by community organizations' participation in sustainable forest management after project completion. Therefore, there is a need to actively promote local residents' participation when choosing sub-projects and preparing detailed activity plans in targeted villages so as to develop projects in response to their

needs. We have learned from past projects that enhancing the facilitation skills of forest officers working in the field is essential. Also, from the ex post evaluation of the Punjab Afforestation Project in India (I and II), we have learned that the relationship of trust between executing organizations and community (rather than mere “participation”) is of critical importance in participatory projects. Lessons from past projects leads us to believe that to build relationships of trust, executing organizations and community must cooperate and compromise with one another based on an understanding of mutual needs and roles. In addition, the ex post evaluation of the Attapady Wasteland Comprehensive Environmental Conservation Project brought to light the following points: due to the lack of information on communitys’ needs at the time of project preparation, it was difficult to build a smooth relationship between the executing agency and community; therefore, it is necessary to take sufficient time to conduct surveys of the relationship between community and government organizations, social and living conditions, and development needs. Further, it is also important not only to employ community people through construction work but also to promote their economic independence through project activities and to support independent facility management by community organizations.

## (2) Lessons for the Project

This project aims to promote forest restoration and livelihood improvements with the participation of community organizations. We will promote active participation of community from the planning stage. In addition, in order to develop relationships of trust between the executing agency and community, we will provide government forest officers working in the field and community organization members with capacity building training for participatory forest management to ensure smooth project implementation. In the process of choosing villages for the project and preparing activity plans, we will also conduct a sufficient survey of socioeconomic conditions and activities for promoting economic self-reliance of community in the project plan, as well as conduct training and monitoring to carry out management and maintenance of installed facilities.

## **7. Plan for Future Evaluation**

### (1) Indicators for Future Evaluation

- 1) Eco-restoration area (ha)
- 2) Survival rate of planted trees (%)
- 3) No. of villages targeted for eco-restoration
- 4) No. of community organizations targeted for livelihood improvements
- 5) No. of participants trained (persons)
- 6) Economic internal rate of return (EIRR) (%)

### (2) Timing

Two years after project completion