

JICA  
assisted  
Forestry Projects  
in  
India



# Japan International Cooperation Agency

Established as an independent administrative institution, The Japan International Cooperation Agency (JICA) aims to contribute to the promotion of international cooperation as well as the sound development of Japanese and global economies by supporting the socio-economic development, recovery or economic stability of developing regions.

JICA works at the level of ordinary people to help developing countries become self-reliant in pursuing their own socio-economic development.

Our aim is to act as a bridge between Japan & developing countries so that the knowledge and experience of all our people can be shared, and developing countries can strengthen their own problem-solving capabilities.





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*Front Cover:*  
Srimati Naik, senior secretary of Singha Bahani SHG in Chatkoi, Orissa performs the activity of pre-pond management. The Singha Bahani has initiated pisciculture by buying 12,000 fingerlings in July 2011 that will be harvested in the next seven-eight months.



## Message from Chief Representative of the JICA India Office

Japan International Cooperation Agency (JICA), which provided its first ODA Loan assistance for a forestry project in the state of Rajasthan in 1991, continues to be the largest donor to the forestry sector in India, for several years in a row now, with a cumulative commitment of JPY 214 billion (approximately Rs. 15,000 crores), for 22 forestry projects in 13 states of India. This also includes one national level project being implemented by the Ministry of Environment & Forests (MoEF), Government of India, for the capacity development of the frontline staff, across more than 10 states in the country. In addition, JICA is also assisting a Technical Cooperation project for strengthening the training facilities and faculty at the Directorate of Forest Education and Central Academy for State Forest Service at Dehradun.

A number of notable achievements of JICA projects which have been observed over the years are namely a) environmental improvement due to increased forest cover through large scale afforestation and regeneration, b) effective soil and moisture conservation measures, c) institutional strengthening of the forest departments in terms of management and introduction of latest technologies, and d) strong community participation through effective Joint Forest Management (JFM) mode by implementation of "JFM Consolidation Activities", which include activities for community development and income generation through Self Help Groups.

While the results of such activities are very encouraging, we recognise that ensuring sustainability of the positive impacts of our project is our biggest challenge, which we are yet to overcome fully. Nonetheless, we are making focussed efforts in this direction. Further biodiversity conservation, which is a matter of concern the world over is our new focal area for interventions in India. We are making best possible efforts to strengthen such areas in the country.

The objective of this booklet is to provide an overall picture of JICA-assisted forestry projects in India and best practices associated with each project. We sincerely hope that the knowledge and experiences of JICA-assisted forestry projects, which have been formed through active collaboration between India and Japan, would facilitate the evolution of other forestry projects, to be implemented by the Ministry of Environment and Forests and state governments in the future. JICA expects to continue with its positive support for the forestry sector projects in the years to come.

**Shinya Ejima**  
Chief Representative  
JICA India Office





## Acknowledgement

JICA India Office would like to express sincere gratitude to Ministry of Environment and Forests, Government of India, and the Forest Departments of each state where Japanese ODA Loan and Technical Cooperation forestry projects are being implemented. They have provided us with necessary information, data and photographs to bring this booklet into existence. Needless to say, it is due to the efforts of the executing agencies that best practices have been evolved, which shall continue to bring about effective changes impacting the forestry sector scenario of India in a positive way. We appreciate the efforts and endeavors of all those who have been part of JICA-Assisted forestry projects and look forward to a more strengthened relationship with them in future.



*Photo: Collage of beneficiaries of JICA funded initiatives in the states of Uttar Pradesh, Haryana, Rajasthan, Gujarat, Orissa & Himachal Pradesh*



# Japanese ODA Assistance

## Japanese ODA Assistance to India

The Japan International Cooperation Agency (JICA) is a Japanese government financial institution responsible for providing Japanese Official Development Assistance (ODA) Loans, Grant Aids and Technical Cooperation to developing countries. Japanese ODA Loans are concessionary, long-term, low interest funds that supplement the efforts of the developing countries in the process of building their socio-economic infrastructure and achieving economic stabilization. Grant Aid

is a form of ODA involving the provision of funds to the governments of developing countries without the obligation of repayment. The aim is to cooperate with economic and social development by helping the government of the recipient country to introduce and upgrade its facilities and equipment. Technical Cooperation Projects are results-oriented, with Japan and a developing country pooling their knowledge, experience, and skills to resolve specific issues within a certain timeframe. The projects may involve the dispatching of experts from Japan to provide technical support, invitation of personnel from developing countries for training, or the provision of necessary equipment.

Japan's ODA to India first started in 1958, when a Japanese ODA Loan of JPY 18 billion was extended to supplement the efforts of implementing the Second Five Year Plan at the request of the then Prime Minister, Jawaharlal Nehru. In 2004, India became the largest recipient country of Japanese ODA Loans in terms of annual commitment, and that trend has continued thereafter. Today India has been the largest recipient of Japanese ODA Loans in the world.

## Assistance to Forestry Sector in India

India is a country where poverty is predominant with approximately 302 million people living below the poverty line (BPL). Most of the poor in India are confined to rural or tribal areas and the livelihood of the majority of these people depends directly or indirectly upon forestry resources. Being in the primary stage of development, the poor largely live off the land, thus putting immense pressure on the natural forests around them. Over decades, perhaps centuries, this has resulted in extensive degrada-

tion of forests and depletion of forest resources across the country, forcing the Government of India/State Governments to undertake massive afforestation/regeneration programmes with their own resources and with assistance from international donors such as JICA, World Bank, DFID, KFW and AFD.

Assistance to the forestry sector through Japanese ODA Loans started in 1991 with the "Afforestation and Pasture Development Project along Indira Gandhi Canal Area" in Rajasthan. Since then, Japanese ODA Loans have been extended to a

*Photo: A small isolated hamlet situated near the Dhanana distributary in Jaisalmer, Rajasthan. JICA is involved in desert plantation activities in the region to stop siltation of the distributaries.*





# to the Indian Forestry Sector

total of 22 projects, across 13 states (Rajasthan, Gujarat, Kerala, Tamil Nadu, Karnataka, Punjab, Haryana, Orissa, Himachal Pradesh, Tripura, Uttar Pradesh, Sikkim and West Bengal) in India, making Japan the largest donor in the sector.

In the field of Technical Cooperation, a national level project aiming at the Capacity Building of State Forest Training Institutions has been committed in 2008. This technical cooperation project is the first in the forestry sector in India.

When Japanese ODA Loan assistance started for the forestry sector in 1991, Joint Forest Management (JFM) was in the stage of evolution. Although the Government of India had come out with the first JFM circular in June 1990, JFM had actually not seen the light of day at the state level in the practical sense. Consequently, projects which were designed and posed for Japanese ODA Loans during the 90's (1991-1997), which can be called first generation projects, were primarily focused on afforestation and included components such as soil and water conservation, training, extension, and procurement of equipment.

## Approach to the forestry sector

Over these seven years (1991-1997), significant lessons were drawn from the experience of these first generation projects. Therefore, during the period of economic sanctions from 1998 to 2002, JICA (former JBIC) undertook a detailed exercise to analyse the effectiveness of its assistance to the forestry projects in India. A study was instituted in 2000 on "Forestry Sector Policy Issues" wherein all the seven on-going projects, at that time, were examined in terms of design, implementation, effectiveness and sustainability. The findings and recommendations were discussed with each Executing Agency and the Ministry of Environment and Forests to evolve a consensus on the overall course correction of the on-going projects and improvement in terms of design and strategy of the future projects.

The second generation forestry projects which began after 2002, aimed at striking an equilibrium between afforestation and sustainable livelihood improvement of the local communities through JFM mode. Through community development works and income generation activities, which are collectively called "JFM consolidation activities," sustainable poverty alleviation and socio-economic development activities in the project area were undertaken. The projects also gave adequate attention to institutional capacity building of forest department staff, soil and water conservation measures, improvement of infrastructure, research and extension, and involvement of NGOs/community development officers for the implementation of JFM consolidation activities. Moreover, the design of the projects was also different, as a three phase approach was adopted rather than an ad hoc one. Equal importance was given to concurrent monitoring and evaluation through internal as well as third party means.



# Guidelines for formulation of forestry projects

As the number of forestry projects supported by the Japanese ODA Loans increased over the years, many prospective projects emerged for possible assistance from JICA. It is at that point of time, JICA (former JBIC) felt an urgent need to streamline the procedure for preparation of the project proposals by the State Governments/Government of India. Accordingly, in 2005, Guidelines for Designing of Forestry Projects were formulated by former JBIC to improve formulation of new projects in terms of design, effectiveness, implementation, strategy, sustainability, etc. The contents of the guidelines were reviewed and concurred by the Ministry of Environment and Forests, Government of India.

As per the guidelines, any new forestry project, which is expected to be taken up with the assistance of the ODA Loans, needs to be comprehensive in terms of content by adopting a holistic approach. Emphasis is not only given to afforestation but also to other activities like water and soil conservation, training, community development activities, etc. Some of the examples of the components of the project that are suggested to be undertaken based on requirement of different state are as follows:

## Components of the Project

- Afforestation (village-based cluster approach on watershed basis)
- Agro-forestry/farm forestry
- Water and soil conservation
- Training and extension
- Biodiversity conservation and ecotourism
- Community development activities
- Income generation activities through SHGs with marketing strategy
- Involvement of NGOs as facilitators for JFM consolidation activities
- Training of all stakeholders
- Dovetailing of project activities with other government departments schemes
- Monitoring and evaluation
- Impact analysis after project completion

*Photo: A woman from Rajamau village in Hamirpur, Uttar Pradesh at forest plantation site under the Joint Forest Management Committee*



# Phase-wise Approach

In terms of the project design, it is also imperative to adopt a phase-wise approach in order to make the projects effective and sustainable. Accordingly, the entire project is divided into three phase's i.e. Preliminary phase, implementation phase and consolidation phase. In brief, the major activities under each phase are as under:

## **Preliminary phase (1-18 months)**

- Set up an effective organization structure which includes project management unit, appointment of consultants, formation of village forest committees etc.
- Capacity building of forest department staff for Participatory Rural Appraisal (PRA), micro planning, etc.

## **Implementation phase (3-4 years)**

- Sole focus is on implementation of project components
- Concurrent internal/external monitoring and evaluation is undertaken

## **Consolidation phase (1-2 years)**

- No fresh activities are taken up
- Time for introspection and remedial measures
- "Exit policy" is implemented

With 20 years of experience in the Indian forestry sector, Japanese ODA Loans will continue to extend assistance for promotion of participatory forest management through JFM approach. Further, the endeavour will be to strengthen the capacity of executing agencies and reposition forestry projects so as to align them with the millennium development goals and challenges against global warming and poverty alleviation.



# JICA-Assisted Forestry

## ODA Loan Projects

	Loan Agreement (Year)	Name of the Projects	Loan Amount (JPY Mil)	Plantation (ha)
1	1991	Afforestation and Pasture Development Project along Indira Gandhi Canal Area	7,869	47,000
2	1992	Afforestation Project In Aravalli Hills	8,095	15,000
3	1995	Rajasthan Forestry Development Project	4,219	55,000
4	1996	Gujarat Afforestation And Development Project (I)	15,760	231,000
5	1997	Eastern Karnataka Afforestation Project	15,968	470,500
6	1997	Tamil Nadu Afforestation Project (I)	13,324	406,000
7	1997	Punjab Afforestation Project (I)	6,193	39,600
8	2003	Punjab Afforestation Project (II)	5,054	20,900
*9	2003	Rajasthan Forestry And Biodiversity Project (I)	9,054	120,000
*10	2004	Haryana Natural Resource Management And Poverty Reduction	6,280	50,000
*11	2005	Tamil Nadu Afforestation Project (II)	9,818	177,500
*12	2005	Karnataka Forest Management And Biodiversity Conservation	15,209	185,000
*13	2006	Swan River Integrated Watershed Management Project	3,493	9,700





# Projects in India

## ODA Loan Projects

Loan Agreement (Year)	Name of the Projects	Loan Amount (JPY Mil)	Plantation (ha)	
*14	2006	Orissa Forestry Sector Development Project	13,937	199,500
*15	2007	Tripura Forest Environmental Improvement Project	7,725	55,100
*16	2007	Gujarat Forestry Development Project Phase 2	17,521	146,600
*17	2008	Uttar Pradesh Participatory Forest Management Project	13,345	80,500
*18	2008	Capacity Development For Forest Management & Personnel Training Project (Executed by MoEF)	5,241	N/A
*19	2010	Sikkim Biodiversity Conservation And Forest Management Project	5,384	4,300
*20	2011	Tamil Nadu Biodiversity Conservation And Greening Project	8,829	143,000
*21	2011	Rajasthan Forestry And Biodiversity Project (Phase 2)	15,749	83,650
*22	2012	West Bengal Forest And Biodiversity Conservation Project	6,371	18,970

## Technical Cooperation Project

Year Granted	Name of the Project	
*1	2008	Project for Capacity Building of State Forest Training Institutions and Central Academy for State Forest Services (CASFOS)

\* On-going projects are described in detail inside.



# Rajasthan

## Forestry and Biodiversity Project\*



**Executing agency:**  
Department of Forest,  
Government of Rajasthan

**Loan:**  
Amount: JPY 9,054 million  
Agreement signed: 2003

The Rajasthan Forestry and Biodiversity Project was initiated with the aim of checking desertification, improving ecological status of Aravalis as well as augmenting the availability of forest produce and thereby improving the socio-economic conditions of the rural poor of Rajasthan. The key project activities include afforestation, biodiversity conservation, soil and moisture conservation and numerous Joint Forest Management (JFM) consolidation activities. Afforestation was undertaken in 123,967 hectares and 30 million man-days of employment were generated under the project. Additionally, 2599 moisture conservation structures were developed. As part of JFM consolidation, 1012 Village Forest Protection and Management Committees (VFPMCs) were constituted and strengthened under the project and a corpus fund of Rs 90.35 million has been provided to these VFPMCs for maintenance of project assets after the project completion. 1428 Self Help Groups (SHGs) were formed to promote income generation activities.

‘Carrying of axe and hooks in the afforested area is prohibited by our village council. We penalize the person who does so. I even penalized my relative.’

Narayan Kulheri, VFC President, Jaloi Village

Under the project, funds for raising 4 million seedlings in departmental nurseries were provided in the first year. These seedlings were sold and the proceeds from the sale were used to raise and sell 20 million seedlings in the period 2003-04 to 2008-09.

Locals of Balicha village and forest officials in discussion during a VFPMC meeting in Udaipur district





*Aloe Vera juice extracting and bottling plant in Oghna, Udaipur district. Male members from the local VFPMC in Oghna have been provided with seasonal employment at the plant.*



*Aloe Vera gel is extracted from a crushing machine*



*Extracted gel goes through a five process filtration*



*Aloe Vera juice is packaged in bottles before shipping*

*Soil & Moisture conservation activity at Kewra ki Nal situated in Saroda range, Udaipur district*



## **Best Practices**

### ***Soil & moisture conservation***

*The adoption of intensive in-situ soil and moisture conservation and water harvesting techniques such as construction of contour trenches, contour dykes, check dams, anicuts, v-ditches, etc. have resulted in improved plant growth and survival rate as well as improved results of seed sowing and rejuvenation from root stock.*

*\* The project completed in July, 2010*



# Haryana

## Integrated Natural Resources Management and Poverty Reduction Project

**Executing agency:**  
Forest Department,  
Government of Haryana

**Loan:**  
Amount: JPY 6,280 million  
Agreement signed: 2004



The project aims to rehabilitate forests and wastelands of Haryana in an ecologically sustainable manner and to improve the quality of life of the village communities residing in adjoining areas. The scope of the project comprises afforestation, soil and moisture conservation, poverty reduction programmes, technical assistance, publicity and extension, human resource development, Management Information System (MIS), Geographical Information System (GIS), etc. Plantations have been carried out on a total of 48,800 hectares on government lands, wastelands owned by the state government, selected village common lands and private farmlands. Plantation and poverty reduction activities are spread over 800 villages in 17 districts of Haryana, exclud-

ing Gurgaon and Faridabad, where the “Children Forest Programme” (CFP) is being implemented.

Furthermore, institutional capacity building consultants have been appointed under the poverty reduction component to specially work for making the income generation activities of the Self-Help Groups (SHGs) more effective and sustainable. The consultants not only help in forming and educating SHGs but also provide and arrange training in different vocations and then link them with markets in the towns and cities. This is working very effectively and benefiting a large number of SHGs under the project.

*Members of Shiv Shakti and Kalpana SHGs formed in 2008-09 in Barsat village*





Road side plantations



*Eucalyptus and Jamun plantation near Muyana drain*



*Mixed plantation on Bahari Road*



*Eucalyptus plantation along Badhana distributory in Jind*

*Women from Bhanjra community make bamboo baskets in Godam village located in Pinjore. The income generating activity is performed by providing the community with culms from bamboo plantations grown in adjacent protected forest areas.*



*Beauty parlour and tailoring shop:*

*Balwant Kaur (standing in Left corner) is the secretary of Satguru SHG situated in Uparalabas VFC near Panchkula. Satguru SHG has a total of thirteen female members and they have been running a tailoring shop, boutique and beauty parlor since 2008.*

# Tamil Nadu

## Afforestation Project -Phase II

**Executing Agency:**  
Forest Department,  
Government of Tamil Nadu

**Loan:**  
Amount: JPY 9,818 million  
Agreement signed: 2005



To continue, consolidate and replicate the gains of Tamil Nadu Afforestation Project I (TAP I), another project, Tamil Nadu Afforestation Project II (TAP II) was designed. Besides afforestation, the projects focused on new frontiers such as geographical information system (GIS), human resource development, research, forest extension and infrastructure development.

In TAP II, the model of TAP I has been expanded to plantation of another 180,000 hectares of land and 800 villages wherein Village Forest Committees (VFCs) have been constituted to execute the project works based on Joint Forest Management framework. In an effort to strengthen women's participation and to provide alternate livelihood opportunities for poor communities living in the forest area, the project has formed Self-Help Groups (SHGs) to introduce micro credit activities through a revolving "corpus fund" established with project funds.

The project targets have already been achieved. A total of 800 VFCs and 2,900 SHGs have newly been formed.

“We formed SHG and got loan through TAP for starting up the income generation activities. My daughter Gayatri wanted that she should study Microbiology and with the increased income that I could get her dream come true. She has completed her M.Sc. in Microbiology and is preparing for Ph.D. entrance examination.”

Lata, Karpagambal SHG,  
Padvedu Village



Plantation activity in a Nursery





*GIS laboratory in Chennai*

## **Best Practices**

### ***GIS for Forest Management***

*To strengthen the quality of project planning and monitoring, TAP has introduced GIS which has proved to be an effective management tool. GIS has been used by the Tamil Nadu Forest Department to prioritize the works in the forest areas, delineate micro-watersheds, plan for appropriate water harvesting structures, etc. Monitoring vegetation and forest degradation changes using GIS has also helped in development of protocols for bio-resource/landscaping level conservation.*



*Pottery Making as a part of income generation activities, Padveddo village, Vellore district*

# Karnataka

## Sustainable Forest Management and Biodiversity Conservation Project

**Executing Agency:**  
Forest Department,  
Government of Karnataka

**Loan:**  
Amount: JPY 15,209 million  
Agreement signed: 2005



The Karnataka sustainable forest management and biodiversity conservation project covers all the districts of Karnataka. In addition to afforestation, farm forestry, soil and water conservation works, the project also covers conservation of rich biodiversity and improvement of the management of protected areas within the state. For this purpose, apart from village forest committees, Eco Development Committees (EDCs) have been formed to protect one national park and four wildlife sanctuaries that fall under the project.

Realizing the importance of mangrove forests that provide a critical habitat for a diversity of marine and terrestrial flora and fauna, the project is restoring and conserving the salt tolerant fore shore ecosystems in coastal Karnataka.

The project also realizes the urgent need for environmental education of children and is covering 2000 schools to promote ecological awareness among school children.

‘A novel concept of Eco-Tourism in protected areas is providing new livelihood prospects to the local communities in the form of ticketing, parking facilities and shops.’

Subramaniam, VFC President,  
Koppa Division



SHG member making leaf plates as one of the income generation activities





*SHG member involved in Petty shop management*

## **Best Practices**

### ***Initiatives to Strengthen Joint Forest Management***

*A facilitation network of NGOs has been created to form and build capacities of VFCs and EDCs. The NGOs have also supported VFCs and EDCs in developing micro plans for their respective villages as well as strengthening income generation activities by Self Help Groups. The Karnataka Forest Department has developed a comprehensive system for assessment of the performance of VFCs/EDCs. A mechanism of reward and recognition of best performing VFCs/EDCs have been instituted to generate enthusiasm and competition for improved performance by these institutions. The forest department has also appointed volunteers and motivators (out of state funds) to support the VFCs and EDCs after the completion of the project.*

### *Promotion of Eco-Tourism through Eco-Development Communities*

*Shringeri waterfalls, one of the eco-tourism sites in Koppa Division*



*EDC members, Shringeri Range, Koppa Division*



# Orissa

## Forestry Sector Development Project

**Executing agency:**  
Forest and Environment Department,  
Government of Orissa

**Loan:**  
Amount: JPY 13,937 million  
Agreement signed: 2006



The project aims to restore degraded forests and improve the income level of the villagers by promoting sustainable forest management including plantations through Joint Forest Management (JFM) and community/tribal development. The project is to be implemented in 14 forest and wildlife divisions, namely Angul, Balliguda, Bonai, Deaogarh, Jeypore, Keonjhar, Koraput, Parakhemundi, Phulbani, Rayagada, Rourkela, Satlkosai, Balasore, and Bhadrak. These divisions fall in 10 districts of the state.

The major activities are to be planned and implemented by the Van Samrakshan Samities (VSSs) through preparation of

comprehensive micro plans not only for the restoration of the degraded forests assigned to the communities, but also for the overall development of the village. One important sub-objective and approach of the project is to enhance capacity of the forest department staff, members of VSS, Self-Help Groups (SHGs) and the communities at large.

Under the project, 196,650 hectares of degraded forests shall be restored and 2,810 hectares of coastal plantations would be undertaken. A total of 2,275 VSSs and 4,500 SHGs would be formed under the project.

‘Karada is a small tribal village in Rayagada division and villagers depend mainly on forest produce. Karada and its surrounding villagers collect plenty of tamarind and other NTFPs, which they sell at nearest market (Ramnaguda which is 8 kms away). Sometimes, petty traders come to the village for purchasing these NTFPs. After the formation of VSS under OFSDP, the VSS committee purchased one 50 kg weighing machine under VSS’s EPA fund and provided loan of Rs. 40,000/- from VSS revolving fund.’

Malati Devi Mutika, VSS President, Karada village

Members of Chandimata SHG run a betel leaf plantation in Khadibil, Jaleswor district.





## Best Practices

### *Autonomous Institution for Implementation*

The Orissa Forestry Sector Development Society, which is the implementing agency of the project, is as an autonomous organisation formed by the Government of Orissa under the Forest and Environment Department. The society has been registered under the Registration of Societies Act, 1860. The Chief Secretary and the Agriculture Production Commissioner, Orissa are respectively the President and Vice-President of the Society. The Project Director is the Ex-Officio CEO of the Society. The Society has a High Powered Committee headed by the Chief Secretary, and Governing Body headed by the Agriculture Production Commissioner-Additional Chief Secretary. The Project Management Unit (PMU) is headed by the Project Director. The Society has its own bye-laws and accounting procedures developed in concurrence with the Accountant General and approved by the Government of Orissa. The Annual Action Plan and the annual budget are approved by the High Powered Committee. Being a society helps in taking quick decisions and timely implementation of different activities. Financial powers have been delegated to the PMU head, and also to the Division level management unit chiefs to facilitate timely sanction of different works and for smooth implementation.



Members of Mahamangla SHG making small hand made crafts from bamboo in Bardasahi



Forest department staff working inside the hardening chamber at the Orissa Forest Rangers College hi-tech nursery in Angul



# Tripura

## Forest Environmental Improvement and Poverty Alleviation Project

**Executing Agency:**  
Forest Department,  
Government of Tripura

**Loan:**  
Amount: JPY 7,725 million  
Agreement signed: 2007



This project, in the north eastern State of India, focuses on restoring degraded forests and improving the livelihoods of the people, especially the tribal population engaged in traditional shifting cultivation. Afforestation in 51,000 hectares of forest land, farm forestry, agro forestry and soil and moisture conservation are the key components of the project. Community mobilization forms the essence of the project and 456 Joint Forest Management Committees (JFMCs) and Eco Development Committees (EDCs) are to be formed and strengthened under the project. These JFMC shall play a central role in restoration of forests and socio economic development of their respective villages. The project provides for comprehensive capacity building of these JFMC as well as development of basic infrastructure for these JFMCs. Strong emphasis has also been laid on development of infrastructure as well as capacity building of the personnel of the forest department.

“The Project is in the 4<sup>th</sup> Year of implementation. Several components and sub components of the project are implemented earnestly with the seriousness they deserve. Out of the target of 456 JFMCs/ EDCs, the project has so far formed 413 JFMCs and 9 EDCs. The project envisages 1400 SHGs of which 413 have been formed/ adopted.”

G.S. Raju, Project Director

*Soil & Water Conservation (SWC) Works by Jalema JFMC, Udaipur division*





## Best Practices

### *Centre of Excellence*

The NTFP Centre of Excellence (NCE) has been formed under the project to focus on Non Timber Forest Produce (NTFP) and value addition in a comprehensive manner. It is envisaged that NCE shall undertake research and provide modern technologies and productive planting stock. NCE shall also conduct training of community members as well as strengthen value addition and marketing of NTFP. In this regard, 5 Common Community Facility Centres (CCFCs) have already been set by NCE in partnership with various agencies for value addition of bamboo and various NTFP. Processing of broom grass and incense sticks (agarbatti sticks) have been identified as potential income generation activities considering the comparative advantage of Tripura with regard to these activities.



Upper left: Van Mela (Forest Festival), at Agartala in 2010

Upper right: Broomstick making in Udaipur range, Udaipur division

Lower left: Essential oil of *Homalomena aromatica* (Sugandha Mantri Oil), one of the non timber forest products under development for marketing

Lower right: Kalpataru, the green shop of Tripura Forest Department

# Gujarat

## Forestry Development Project - Phase II

**Executing agency:**  
Forest Department,  
Government of Gujarat

**Loan:**  
Amount: JPY 17,521 million  
Agreement signed: 2007



The state of Gujarat faces the Arabian Sea, and has an approximate geographical area of 200,000 km<sup>2</sup>. The state is known for its rapid economic and industrial growth.

In 1994, forest coverage in Gujarat was 6.4%, which was significantly lower than the national average of 19.4%. It was evident that urgent interventions were required to stop further degradation of the forests.

In the first phase of the project, the primary focus was on afforestation, wildlife conservation, trainings and research. As a result of phase I, short-term employment of approximately 65 million man days of labour was generated through afforestation activities, with women as the larger beneficiaries. Such employment opportunity helped

increase the income of the local communities whose livelihoods are dependent on forests.

According to the post evaluation of the phase I, initiated by JICA, and completed in September 2005, it became apparent that further assistance to Gujarat was needed to realize maximum return from the activities carried out and efforts made for sustainable forest management under the phase I of the project. Accordingly, phase II of the project was formulated in 2007, the objective of which is to restore degraded forests, improve livelihoods and empower the local people who are dependent on forests by promoting sustainable forest management and community development, thereby improving the environment and alleviating poverty.

*A member of Jivan Deep Van Bachat SHG grows mushrooms in village Bavli in Vyara Division*



*A member of Jai Sita Ram SHG makes a basket from bamboo in village Uchvan in Baria Division*



*Members of Adaesh Van Bachat SHG make jewellery in village Sajupada in North Dang Division*







Members of Jai Mata Ji SHG sort and grade custard apple fruit collected from the forest in village in Rajavant Chotaudaypur Division.



Delabhai Balobhai Thadui a farmer, JFMC member collects tomatoes in his field in village Panchala in Narmada Division. Tomato seeds were provided through community development activity.

In phase II, 11 tribal districts located in the eastern belt and three non-tribal districts have been selected. The project aims to cover 147,800 hectares of plantations in 13 divisions and undertaking soil and moisture conservation works over 118,400 hectares. The project also envisages wildlife conservation and development which includes protected area management in 7 protected areas, eco-tourism development in 3 sites, and eco-development in 7 protected areas and 6 biodiversity hotspots<sup>1</sup>.

As part of eco-tourism promotion, the project plans to construct and manage eco-lodges, develop nature trails and establish information centres cum gift shop equipped with audio-visual facility in four protected areas of Shoolpaneshwar sanctuary, Ratanmahal sanctuary, Jessore sloth bear sanctuary and Vansda national park.

<sup>1</sup>Biodiversity hotspots are the richest and most threatened reservoirs of plant and animal life on Earth designated by Conservation International, an international NGO.

“The project will help in the development of forests so as to provide benefits to the local people, particularly tribals in the form of wages and forest products. The efforts to improve forest resource are important in enhancing economic opportunities of the tribals. With more forest products, opportunities for deriving enhanced income will increase. The project will proceed on schedule to ensure restoration of degraded forests and improvement of income levels of villagers by promoting sustainable forest management as the larger goal of environment improvement.”

Dinesh Mishra,  
Project Director



A Tourist takes a picture as she relaxes next to her tent at Nature Education site in Kevadiya range in Narmada division.



Tourists visit an Interpretation center during their visit to an Eco tourism site in Kevidi village in Chotoudaypur Division.

# Swan River

## Integrated Watershed Management Project

**Executing agency:**  
Forest Department,  
Government of Himachal Pradesh

**Loan:**  
Amount: JPY 3,493 million  
Agreement signed: 2006



Catchment areas of the Swan river in Himachal Pradesh are located in the fragile and vulnerable Shivalik hills where the river frequently overflows its banks during the monsoon causing erosion of soil resources. To protect lands from soil erosion and floods, regenerate the forest cover and enhance agricultural productivity in the Swan river catchment area in Una district, this Project is being implemented in the selected sub-watersheds of Swan river.

The Project activities include afforestation, civil works for soil and river management, soil protection and land reclamation, and livelihood improvement activities, thereby improving the living conditions of people including the poor in the catchment area. The livelihood activities encompass on farm production activities, community infrastructure development and income generation activities through Self-Help Groups.



The catchment of the Swan river has been divided into 42 sub-watersheds, out of which 22 sub-watersheds with an area of 61,900 hectares have been selected for treatment.

The Project will be implemented through 95 Panchayat Development Committees (PDCs), an authorized body constituted under the Gram Panchayats. The approach adopted for intervention involves the Community Based Participatory approach jointly facilitated by the Project Implementation Unit of the project and community based organizations. The Forest Department is the nodal agency of the Project. Besides, The Departments of Agriculture, Horticulture, Animal Husbandry, Irrigation and Public Health and Rural Development of the State are participating in the Project.

*Tarsem Lal (L), a member of Shiva vegetable protection group stand in his turmeric crop with his wife Sushma Devi (R) in Ambota village in Una district.*





*Sunita Devi (R) a member of Om Sai SHG breaks into laughter as she makes carry bags in Ambota village in Una district.*



*Left: Concrete water harvesting dam in village Amlehar in Una district*

*Right: Dev Raj, a farmer opens the sluice valve to irrigate his field as water flows with gravity from the dam in village Amlehar in Una district*



*A farmer working in his field in village Amlehar in Una district*

# Uttar Pradesh

## Participatory Forest Management Project

**Executing agency:**  
Forest Department,  
Government of Uttar Pradesh

**Loan:**  
Amount: JPY 13,345 million  
Agreement signed: 2008



The objective of the project is to restore degraded forests, improve livelihood and empower the local people who are dependent on forests by promoting sustainable forest management through Joint Forest Management (JFM) approach and community development, thereby improving environment and alleviating poverty.

In this project, afforestation activities will be conducted with the participation of local communities to rehabilitate forests, as they are crucial for the livelihoods of the poor people. 80,500 hectares will be targeted for plantation and 800 Joint Forest Management Committees (JFMCs) will be formed. In addition, financial support will be provided to the targeted

JFMCs for community development through construction of small infrastructure facilities such as link roads and for livelihood improvement through small-scale income-generation activities. For such village level activities, NGOs have been hired not only to help in forming and educating Self-Help Groups (SHGs) but also to provide and arrange trainings in different vocations and then link them with markets in the towns and cities.

Furthermore, the project also has a component of Children Forest Program, which is an attempt to help children learn the importance of forest conservation through environmental education.

*JFMC members working on the forest plantation in village Rajamau in Hamirpur Division*





*JFMC conducts a meeting at Rajamau village in Hamirpur Division*



*GIS laboratory in Lucknow*

## **Best Practices**

### ***Children Forest Programme***

*“Children Forest Programme” is a unique feature of the project, wherein schools (both government and private) in 6 districts of the state are to be covered over a period of 5 years. The programme aims to develop a sense of voluntary tree planting among children, by having them understand the important role forests play in the context of global ecological balance. The CFP is an environmental learning programme that is typically based in schools with children as the main actors. In addition, teachers, parent and others in the community also join the children in making mini-forests on or near the school grounds. As a result of the experience, CFP participants develop a sense of pride and accomplishment in making positive and concrete contributions to their communities. To run the programme, the Uttar Pradesh Forest Department has hired the services of OISCA, a Japanese NGO having its representative office in New Delhi and also other NGOs.*

*Students of Sri Krishna Devi girls inter college during their visit to Kukrail forest conducted under the Children Forest Programme in Lucknow.*



# Capacity Development

## ODA Loan Project

### Capacity Development for Forest Management and Personnel Training

**Executing agency:**

Ministry of Environment  
and Forests

**Loan:**

Amount: JPY 5,241 million  
Agreement signed: 2008

It has been recognized that one of the factors causing destruction of the forests is the arbitrary use of forest resources by the poor village communities living in or on the fringes of forests, which depend on those resources to make a living. It is therefore vital to promote awareness of the importance of forest management among the local village residents while planning for forest conservation, and to provide assistance to improve the livelihoods of the poor and their effective use of forest resources in a sustainable manner.

To that purpose, it is critical that the frontline staff of each state's forest department, which implements the project

and is in daily contact with local village communities, receives effective and well-structured trainings on the latest skills and techniques covering various aspects of the forestry sector, including forest management methods based on a new innovative approach. However, the 63 nos. of the state-operated forest training schools throughout India, that are in charge of providing the training to the frontline staff are completely ill-equipped to provide appropriate training due to various reasons such as inadequate state budgetary allocations, poor infrastructure and low priority accorded by the forest departments to trainings. The project target region will be more than 10 states in India which are to be

## Technical Cooperation

### Project for Capacity Building of State Forest Training Institutions and Central Academy for State Forest Services (CASFOS)

- Cooperation period: March 2009 to March 2014
- Counterpart agency: Directorate of Forestry Education, Ministry of Environment and Forests (Dehradun, Uttarakhand) and CASFoS, Dehradun

#### Background and Objective

By 2001, forest coverage in India had fallen from 40 percent at the beginning of the twentieth century to 23 percent, below the worldwide average of 30 percent. It has been recognized that one of the factors causing destruction of the forests is the arbitrary use of forest resources by the poor village communities, living in or on the fringes of forests, which depend on those resources to make a living. It is therefore vital not only to promote awareness of the importance of forest management among the local villagers but also to provide assistance for improvement of their livelihoods and effective use of forest resources in a sustainable manner.

To this end, it is crucial that the frontline staffs of each state's forest department, who are in daily contact with local village communities, receive effective and well structured trainings, so that they could be equipped with the latest skills and techniques covering various aspects of the forestry sector, including forest management methods based on a new innovative approach. However, most of the frontline staffs currently lack



such skills and techniques, and do not yet have adequate experience in sharing techniques with local villagers.

With this background, this Technical Cooperation project aims to improve the in-service training courses at the national level in Central Academy for State Forest Service (CASFoS), Dehradun. Since state forest officers who are trained at CASFoS become leaders and trainers for the frontline staff in their respective states, the quality enhancement of the in-service training courses at CASFoS is quite important and ultimately leads to upgrading the skills of frontline staffs all over the country.



selected as per the criteria agreed between MoEF and JICA.

In this project, a full training curriculum will be developed to provide training in the latest technology and skills needed for forest conservation, as well as facilitating the implementation of Joint Forest Management (JFM) with local village community members. ODA Loan funding shall also be used to repair and rehabilitate aging training facilities or construct new ones in the states which have no existing training facilities, as of now.



## Project Highlights

This Technical Cooperation project is designed to have synergy effects with the ODA Loan Project “Capacity Development for Forest Management and Personnel Training”. Whereas the Loan project provides funds for improvement of state-level training environment for frontline staff through the rehabilitation of State Forest Training Institutions and through capacity development of frontline forestry staff, the Technical Cooperation project contributes to the enhanced skills of state-level instructors by improving the national-level in-service training course meant for them.

### Project Summary

For this project, Japanese experts who have long experiences in forestry administration are dispatched from Japan’s Forestry Agency, Ministry of Agriculture, Forestry and Fisheries, to provide technical supports. The project is initially to review the existing in-service training courses and identify through surveys the needs and challenges of the state-level trainings, followed by development and implementation of need-based model in-service training courses at CASFoS, Dehradun. It also extends support in establishing monitoring and feedback system which helps clarify the impacts of the training courses at CASFoS and improve them systematically.



# Sikkim

## Biodiversity Conservation and Forest Management Project

### **Executing agency:**

Department of Forest, Environment and Wildlife Management, Government of Sikkim

### **Loan:**

Amount: JPY 5,384 million  
Agreement signed: 2010



The Japan-India commitment for biodiversity conservation has been drawing increasing global interest. The year of 2010 was designated as the International Year of Biodiversity by the United Nations and Japan hosted the Convention on Biological Diversity, “10<sup>th</sup> Conference of the Parties” (COP10) in October 2010. The following COP11 conference, in 2012, may be held in New Delhi, India.

Despite high global biodiversity throughout the world, there are 34 regions (biodiversity hotspots<sup>2</sup>) that are in critical danger of being destroyed. One of these hotspots is located in the eastern Himalayan region of Sikkim State in India. This objective of the project is to strengthen biodiversity conservation activities and forest management capacity, and to

improve livelihood for local people who are dependent on forests, thereby contributing to environmental conservation and harmonized socio-economic development of Sikkim.

In this project, sustainable biodiversity conservation, afforestation and income generation activities including eco-tourism for the community development are to be promoted. This is the first project that has a main emphasis on biodiversity conservation among the JICA-assisted projects in the forestry sector in India. The project shall assist activities such as baseline survey of the region, strengthening management skills for protected areas (including strengthening local community organizations), and carrying out a study to facilitate the designation of the Kanchenjunga National Park as a World Heritage site.

### **Best Practices**

#### ***Technical Support to Formulation of Eco-tourism Policy***

*As a part of technical support, services of a JICA appointed ecotourism expert have been provided to help Sikkim formulate its eco-tourism policy that shall serve as the foundation for economic development, without compromising on environmental conservation.*

*Khangchendzonga Biosphere Reserve*



*Red Panda: One of the flagship species unique to Himalayan ecosystem. JICA supports conservation activities of such species.*



<sup>2</sup> Biodiversity hotspots are the richest and most threatened reservoirs of plant and animal life on Earth designated by Conservation International, an international NGO.



# Tamil Nadu

## Biodiversity Conservation and Greening Project



**Executing agency:**  
Forest Department,  
Government of Tamil Nadu

**Loan**  
Amount: JPY 8,829 million  
Agreement period: 2011

The state of Tamil Nadu is located in the southern part of India and in the Western Ghats Mountain Range which is one of the biodiversity hotspots and with 28 protected areas and 553 endemic species. In addition to 230 red-listed species, many problems are reported, such as man-animal conflict. Among the impoverished residents today struggling to meet their livelihood needs, many are so heavily dependent on forest resources that they have no choice but to turn to deforestation to make a living. In Tamil Nadu, long-term afforestation projects supported by the Japanese ODA Loans have been implemented, and these projects have contributed to increasing the forest and tree cover. However, the forest cover is still only 22 per cent, much below the national target of 33 per cent.

Given these circumstances, it is urgent to manage protected areas and forests scientifically for a sustainable forest management system and to improve the livelihoods of

people living in forests or on forest fringes while conserving the region's biodiversity. The objective of the project is to strengthen biodiversity conservation by improving the ecosystem and management capacity as well as undertaking tree planting outside the recorded forest areas, thereby contributing to environmental conservation and harmonized socio-economic development of Tamil Nadu. Additionally, the tree planting activities are expected to contribute towards reducing the effect of greenhouse gases.

In order to conserve the biodiversity in this state with its many precious endemic species, this project will conserve the ecosystem (by removing invasive and exotic species), strengthen the monitoring systems for fires, poaching, and other threats, establish fences and trenches to reduce man-animal conflict, improve the livelihood of people living in or on the fringes of forests, and carry out community-based ecotourism.

# Rajasthan

## Forestry and Biodiversity Project - Phase II



**Executing agency:**  
Forest Department,  
Government of Rajasthan

**Loan:**  
Amount: JPY 15,749 million  
Agreement signed: 2011

The state of Rajasthan is the driest state in India and two thirds of its geographical area is covered by Thar Desert. Owing to severe climatic conditions, the forest & tree cover of the state at 7.11% is far below the national average of 23.4%. Furthermore, the state, especially Western Rajasthan, faces a major challenge of desertification due to recurrent drought and increasing human and livestock pressures. Past JICA assisted forestry projects in the state have contributed to increase in forest cover and promotion of community participation in conservation and protection of forests. Efforts have also been made to check desertification and to restore ecological status of the desert area by intensive afforestation and silvipasture. However considering the huge size of the state and adverse climatic and geographic conditions, more efforts are needed to increase forest cover and protect the rich biodiversity of the state.

The new project aims to enhance forest area and liveli-

hood opportunities of the forest dependent people and to conserve biodiversity by undertaking afforestation and biodiversity conservation measures through Joint Forest Management (JFM) approach, thereby contributing to environmental conservation and socio-economic development of the state.

Community mobilization and poverty alleviation initiatives form integral components of the project. The project activities include canal side plantation, sand dune stabilization cum pasture development, silvipastoral plantation and block plantation in desert areas of the state. Rehabilitation of degraded forests, Aided natural regeneration, fuel wood and other plantation are to be taken up in the non-desert areas. Biodiversity conservation activities are planned to be taken up in the fringe areas of 7 Protected Areas of the state. Water conservation measures shall go hand in hand with the plantation activities to be taken up under the project.

# West Bengal

## Forest and Biodiversity Conservation Project

**Executing agency:**  
Forest Department,  
Government of West Bengal

**Loan**  
Amount: JPY 6,371 million  
Agreement period: 2012



The state of West Bengal, located in the eastern part of India, has the second highest population density in India. Over-use of forest resources such as firewood and other forest products required for daily living is constant, applying immense biotic pressure on forest resources and creating the problems of quantity and quality of forests. While there is a rising trend in forest coverage, West Bengal's forest cover rate remains at 17.4 percent (2007), a low level compared to the national average of 23.8 percent, making improvements necessary from the perspective of the scarcity of forest coverage. The poverty rate is also higher than the national average. Appropriate forest management while carrying out community development is needed.

Under the new project, forest management will be strengthened through Joint Forest Management activities, and the measures to prevent man-animal conflicts and to improve the habitat of wildlife in Protected Areas and surrounding areas will be taken. Community development and livelihood improvement activities will also be carried out to improve the socioeconomic conditions of local people, and the institutional capacity as well as infrastructure for the forest department will be strengthened and improved as necessary to support those activities.

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## Abbreviation Table

**AFD:** Agence Française de Développement  
**BPL:** Below Poverty Line  
**CASFoS:** Central Academy for State Forest Services  
**CCFCs:** Common Community Facility Centres  
**CDM:** Clean Development Mechanism  
**CFP:** Children Forest Programme  
**DFID:** Department for International Development  
**EDC:** Eco Development Committee  
**EPA:** Entry Point Activities  
**GIS:** Geographic Information System  
**IGA:** Income Generation Activities  
**JBIC:** Japan Bank for International Cooperation  
**JFM:** Joint Forest Management  
**JFMC:** Joint Forest Management Committee  
**JICA:** Japan International Cooperation Agency  
**JPY:** Japanese Yen  
**KFW:** Kreditanstalt für Wiederaufbau  
**MIS:** Management Information System

**MoEF:** Ministry of Environment and Forests  
**NCE:** NTFP Centre for Excellence  
**NGO:** Non Governmental Organization  
**NTFP:** Non-Timber Forest Produce  
**ODA:** Official Development Assistance  
**OFSDP:** Orissa Forestry Sector Development Project  
**OISCA:** Organization for Industrial, Spiritual and Cultural Advancement  
**PDCs:** Panchayat Development Committees  
**PMU:** Project Management Unit  
**PRA:** Participatory Rural Appraisal  
**SFS:** State Forest Services  
**SHGs:** Self Help Groups  
**TAP:** Tamil Nadu Afforestation Project  
**VFCs:** Village Forest Committees  
**VFPMC:** Village Forest Protection and Management Committee  
**VSS:** Van Sanrakshan Samiti





*Photo: A child runs in the shallow water of river Swan in Una district, Himachal Pradesh.*



JICA India Office  
2<sup>nd</sup> Floor, Dr. Gopal Das Bhawan, 28 Barakhamba Road, New Delhi 110-001, India  
Tel: (91-11) 47685500 (91-11) 23714362/63  
Fax: (91-11) 47685555

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