

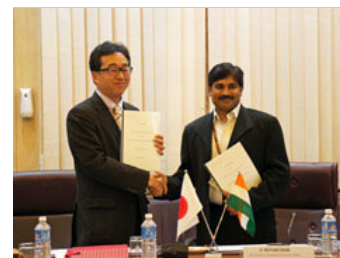
## Signing of Japanese ODA Loan Agreement with India: Integrated support for further socioeconomic development in India

On March 31, 2016, the Japan International Cooperation Agency (JICA) signed loan agreements with the Government of India to provide Japanese Official Development Assistance (ODA) loans of up to a total of 175.106 billion yen for assistance for five projects.

In its Twelfth Five-Year Plan (April 2012 to March 2017), the Government of India set a national goal of realizing "faster, sustainable and more inclusive growth." Socioeconomic development in India entails a wide range of challenges, such as infrastructure development, poverty alleviation, and social and environmental issues that occur with rapid economic development and urbanization.

Under these circumstances, the Government of Japan expressed the intention, at the Japan-India Summit Meeting held in New Delhi in December 2015, to provide ODA to continue proactively supporting Government of India for further socioeconomic development.

Through the assistance for the projects addressed in the signed agreements, JICA will provide multifaceted support for socioeconomic development in India in accordance with the development policies of the Government of India.



Signing ceremony

The details of each project are provided below.

### (1) Supporting stable sewerage services in Odisha State, a state with a high poverty rate

India has established a policy goal of providing sewerage and sanitation facilities to all urban residents, but the construction of sewerage infrastructure cannot keep pace with the growth in sewerage volume accompanying the rise in population and economic development. The rise in the amount of discharged sewage has lowered the level of sanitation and worsened the living environment for local residents due to the smell, the proliferation of insects, lowland flooding and water pollution in rivers.

The Odisha Integrated Sanitation Improvement Project (II) will provide sewerage and rainwater drainage facilities, including a sewerage treatment plant (treatment capacity: 100 million liters per day) and sewerage pipes (total length: 672 kilometers) in Bhubaneswar, the current state capital of Odisha State, and in Cuttack, the former state capital, cities with high poverty rates and almost no sewerage facilities. These measures will improve the sanitation and living environment for residents, including poor people.

### (2) Constructing a dedicated freight corridor to support an efficient logistics network

The volume of freight transportation in India has risen sharply in recent years. Because the current freight railway network, owned by Indian Railways, conducts both passenger and freight transportation on the same lines, the transportation capacity is approaching its limit. As a result, constructing dedicated freight rail is a priority.

Of the dedicated freight rail planned for construction by the Government of India, the Dedicated Freight Corridor Project (Phase 1) (III) will build a section connecting major cities in Gujarat, Rajasthan and Haryana States, where freight transportation is expected to grow at a particularly fast rate. This project will make the freight network in the target region more efficient, thereby contributing to a wide range of economic development in India.

### (3) Supporting farmer horticulture in Jharkhand State with micro drip irrigation

To reduce poverty through expanded agricultural production, India has set a policy goal of strengthening irrigation projects. However, it is predicted that a growing water demand for urban household, industrial and other uses accompanying economic growth will put a strain on water sources, and the water use efficiency for agricultural irrigation in India overall is low, only 38 percent.

The Jharkhand Horticulture Intensification by Micro Drip Irrigation Project will install micro drip irrigation equipment (directly supplying the amount of water required for crop production to the soil surface and roots through regulated control), plastic greenhouses and composting facilities for 30,000 small farming households headed by women in Jharkhand, a state in eastern India which has a large variation in the annual rainfall and scarce water resources. The project will also improve the irrigation ratio, irrigation efficiency, agricultural productivity and crop diversity through technical cooperation for horticultural crop cultivation and marketing. This project targets households headed by poor female farmers with the aim of encouraging the social participation of women in the target communities.

### (4) Contributing to improvements in the health care system in Tamil Nadu State

The achievement of Universal Health Coverage\* under the leadership of the Government of India has been announced, and communicable disease control programs and other efforts have been implemented, improving the health index, including a reduction in the number of cases of communicable diseases. However, the rate of non-communicable diseases (NCDs) such as cardiovascular disease and cancer is rising and such diseases are the leading cause of death in the country.

The Tamil Nadu Urban Health Care Project will provide medical facilities and equipment to fight NCDs and will strengthen the capacity of medical workers in medical facilities in 17 high-priority cities in Tamil Nadu State, which is undergoing urbanization. These efforts will improve the urban health care system, contributing to the promotion of health among state residents.

\* As defined by the World Health Organization, Universal Health Coverage means that "all people can use the promotive, preventive, curative, rehabilitative and palliative health services they need, of sufficient quality to be effective, while also ensuring that the use of these services does not expose the user to financial hardship."

### (5) Supporting a stable power supply in advance of an expected large increase in power demand in Madhya Pradesh State

In its Twelfth Five-Year Plan for national development (April 2012 to March 2017), the Government of India has envisioned, as policy goals, organizational and system reform in the power sector, development of new power generation resources, strengthening of power transmission and distribution networks, and promotion of rural electrification. With steady economic growth in recent years, however, investment for power infrastructure has not been able to keep pace with the rising power demand, resulting in a chronically inadequate power supply, delays in transmission system improvements, and high power transmission and distribution losses. Therefore, suitable investment is imperative for enhancing the reliability of the power supply and maintaining transmission losses.

The Transmission System Strengthening Project in Madhya Pradesh will strengthen the transmission system by laying power transmission lines and constructing substations throughout Madhya Pradesh State, where industrialization has been proceeding rapidly in recent years and the power demand is expected to increase significantly in rural areas as well as cities. The project will stabilize the power system and ensure the power supply meets the expanding power generation capacity.

(Reference) Terms and Amounts of Loans

| Project title   | Amount (million yen) | Annual interest rate (%) |                     | Repayment period (years) | Grace period (years) | Procurement    |
|---|----------------------|--------------------------|---------------------|--------------------------|----------------------|----------------|
|   |                      | Project                  | Consulting services |                          |                      |                |
| Odisha Integrated Sanitation Improvement Project (II)                   | 25,796               | 0.3                      | 0.01                | 40                       | 10                   | General untied |
| Dedicated Freight Corridor Project (Phase 1) (III)                      | 103,664              | 0.1                      | 0.01                | 40                       | 10                   | Japan tied     |
| Jharkhand Horticulture Intensification by Micro Drip Irrigation Project | 4,652                | 1.4                      | 0.01                | 30                       | 10                   | General untied |
| Tamil Nadu Urban Health Care Project                                    | 25,537               | 0.3                      | 0.01                | 40                       | 10                   | General untied |
| Transmission System Strengthening Project in Madhya Pradesh             | 15,457               | 0.8                      | -                   | 20                       | 6                    | General untied |

(1) Odisha Integrated Sanitation Improvement Project (II)

(a) Background and Necessity

Odisha State (population: 42 million in 2011) in eastern India has one of the highest poverty rates in the country, but is blessed with iron ore, coal and other natural resources. In recent years, the state has undergone industrialization and has seen a rise in population. However, in the current state capital of Bhubaneswar and the former capital of Cuttack, a sewerage pipe network, and sewerage treatment and other public sewerage facilities are almost non-existent. The discharge of untreated water results in pollution in river water, groundwater and soil, polluted water is a medium for communicable diseases, damage is caused to the health of local residents, and there are resulting odors, threatening the sanitation and living environment of local residents. The biological oxygen demand, which is a common index for water quality, is greater than 175 mg/l (2015) at some urban discharge channels, which greatly exceeds India's discharge standard of 20 mg/l. As the population is projected to continue growing, and there will be increases in the amount of the water supply and polluted water, the construction of sewerage treatment facilities and rainwater discharge facilities is a priority.

(b) Objective and Summary

This project will construct sewerage and rainwater drainage facilities in Bhubaneswar and Cuttack in Odisha State in eastern India, providing stable sewerage services and improving the rainwater drainage, and thereby improving the sanitation and living environment for local residents. A loan for the first stage of this project signed in March 2007 for 19.061 billion yen has already been provided.

(c) Executing Agency

Orissa Water Supply and Sewerage Board  
Address: Mahanadivihar P.O, Nayabazar, Cuttack, Odisha, 753004  
Phone: +91-671-2444511, fax: +91-671-2441616

(d) Planned Implementation Schedule

- (i) Completion of project: June 2018 – when the facilities are put into service
- (ii) Consulting services (including construction supervision): Consultants have already been hired
- (iii) Tender announcement of initial procurement package for international competitive bidding on project construction: Already contracted

(2) Dedicated Freight Corridor Project (Phase 1) (III)

(a) Background and Necessity

The volume of freight transportation is growing by 10 to 12 percent each year in India, but freight transportation uses both passenger and freight rail, and the transportation capacity is approaching its limit. In 2014, the average speed for freight rail was merely 24 kilometers per hour in India and long delays happen frequently, hindering the smooth transportation of goods.

According to projections by Ministry of Railways, there will be a rapid increase in the demand for container transportation between international ports on the west coast such as Jawaharlal Nehru Port in Maharashtra State and key inland demand locations in the Western Corridor (Delhi-Mumbai). The projections also indicate there will be a fast rise in demand for the transportation of coal, iron ore, cement, fertilizer, grains and other bulk goods in the Eastern Corridor (Ludhiana-Delhi-Son Nagar) that connects the north, the capital region and the east coast. The current rail capacity is only approximately 50 percent of the average demand projected by 2032 in India for passengers and freight.

As the volume of freight transportation thus increases rapidly, the capacity of the current rail is reaching its limit, making the construction of dedicated freight rail a high priority in the Western Corridors where the demand is particularly high.

This project is also positioned as a major part of the core infrastructure for the Delhi-Mumbai Industrial Corridor (DMIC) being promoted by both Japan and India.

(b) Objective and Summary

Along the Western Corridor (Delhi-Mumbai), this project will construct 915 kilometers of new dedicated freight rail connecting major cities where the priority for improvement is particularly high, as well as introducing a completely automated signal and communication system and fast locomotives with a high output. These measures will meet the expected increase in demand for freight transportation and make the logistics network more efficient, thereby contributing to a wide range of economic development in India.

(c) Executing Agencies

Dedicated Freight Corridor Corporation of India and Ministry of Railways

Dedicated Freight Corridor Corporation of India  
Address: 5th Floor, Pragati Maidan, Metro Station Building Complex, New Delhi, 110001  
Phone: +91-11-2345-4780  
Ministry of Railways  
Address: Railway Bhavan, Raisina Road, New Delhi, 110001, India  
Phone: +91-11-2338-9101

(d) Planned Implementation Schedule

- (i) Completion of project: January 2024 – when all the facilities and equipment are put into service
- (ii) Consulting services (including construction supervision): Consultants have already been hired
- (iii) Tender announcement of initial procurement package for international competitive bidding on project construction: Already contracted

### (3) Jharkhand Horticulture Intensification by Micro Drip Irrigation Project

#### (a) Background and Necessity

Jharkhand State is located in eastern India with a population of 33 million people (2011), and more than half of the population in rural areas is engaged in agriculture, which is one of the major industries for the state. As the majority of farmer-owned land is on small lots, horticulture in particular is widespread. However because 80 percent of the annual rainfall is concentrated in the rainy season from June to September and there are no rivers with a year-round flow, Jharkhand has the third lowest rate of irrigation in India at 8.2 percent, and the period when horticulture is possible is restricted to the rainy season. The types of crops that can be produced during that period are also limited, and the crop yields are inadequate. In addition, as farmers do not have adequate marketing knowledge, it is difficult for them to make direct income from horticulture, and the poverty rate in the state is the second in the country at 36.9 percent. Because of these factors, improving the productivity of horticulture crops using the limited water resources and improving the livelihood of small farmers, particularly female farmers who lag in social participation, are priorities.

#### (b) Objective and Summary

This project will install micro drip irrigation for small farmers in the target area of Jharkhand State, and provide technical support for horticultural crop cultivation and marketing to improve the irrigation rate and irrigation efficiency for improved agricultural efficiency and crop diversification, thereby improving the livelihoods of small farmers and the participation of women in society.

#### (c) Executing Agency

Jharkhand State Livelihood Promotion Society  
Address: 3rd Floor, FFP Building, HEC Campus, Dhurwa, Ranchi, 834004, Jharkhand  
Phone: +91-651-240-1782, fax: +91-651-240-1783

#### (d) Planned Implementation Schedule

- (i) Completion of project: February 2023 – with completion of all activities
- (ii) Issuing of letters of invitation for consulting services (including project supervision): April 2016
- (iii) Tender announcement of initial procurement package for international competitive bidding on project construction: International competitive bidding for construction is not planned for this project.

### (4) Tamil Nadu Urban Health Care Project

#### (a) Background and Necessity

Tamil Nadu State (population: 72 million people, 2011) in southern India is one of the most urbanized states in the country, and the number of poor people residing in slums is estimated at 8.64 million, which is predicted to rise going forward. Given these circumstances, it is not possible to meet the growing demand for medical services in the public sector, which the urban poor depend on, and improvements are a priority. In addition to measures for maternal and child health and for communicable diseases, there is a rising need, due to reasons such as lifestyle changes, to implement measures for NCDs, such as early detection and early treatment for cancer and diabetes which have a higher incidence and prevalence in Tamil Nadu than the national averages. Specifically, there is a need for medical facilities at the district level to carry out the testing needed for NCD diagnosis and perform emergency procedures. Also needed are facilities and equipment at medical university hospitals to carry out the accurate diagnosis of cardiovascular diseases and other NCDs and to provide advanced medical services, including therapy and surgery.

#### (b) Objective and Summary

The objective of the project is to improve the quality of health services in urban areas through (i) strengthening the capacity of key hospitals with facility and equipment upgrades, and (ii) strengthening the capacity of human resources with the focus on NCDs, thereby improving the health of people in Tamil Nadu.

#### (c) Executing Agency

Health and Family Welfare Department, Government of Tamil Nadu  
Address: Secretariat, 4th Floor, Government of Tamil Nadu, Chennai, 600009, India  
Phone: +91-44-25665566, fax: +91-44-25367575

#### (d) Planned Implementation Schedule

- (i) Completion of project: September 2020 – when the facilities are put into service
- (ii) Issuing of letters of invitation for consulting services (including construction supervision): April 2016
- (iii) Tender announcement of initial procurement package for international competitive bidding on project construction:  
Procurement package title: CT Scanners, MRI Scanners, X-ray Machines, Others  
Release date: October 2017

### (5) Transmission System Strengthening Project in Madhya Pradesh

#### (a) Background and Necessity

Located in central part of India, Madhya Pradesh State (population: 73 million, 2011) is one of the target states for the Delhi-Mumbai Industrial Corridor (DMIC) initiative being advanced by the Governments of India and Japan, and a proactive industrial development program is being planned for the state. Although construction of a new power plant is planned to meet the rising power demand in Madhya Pradesh, the larger power flow from newly constructed power plants will increase the strain on the existing power grid, which in turn may result in additional power losses and system instabilities. Therefore, strengthening the transmission system is imperative for ensuring a stable power supply and maintaining the transmission losses at a low level.

#### (b) Objective and Summary

This project will construct power transmission lines (total length: approximately 940 circuit-kilometers) and substations throughout Madhya Pradesh to stabilize the power system and ensure a stable supply of the additional power provided by new power generation capacity, thereby improving the balance of electricity supply and demand throughout the state.

#### (c) Executing Agency

Madhya Pradesh Power Transmission Company Limited  
Address: Shakti Bhawan, Rampur, Jabalpur, Madhya Pradesh, 482008, India  
Phone: +91- 761- 2661234, fax: +91- 761- 2664141

#### (d) Planned Implementation Schedule

- (i) Completion of project: May 2020 – when the facilities are put into service
- (ii) Consulting services: No hiring of consultants is planned for this project.
- (iii) Tender announcement of initial procurement package for international competitive bidding on project construction:  
Procurement package title: Procurement and Construction of Transmission Lines 2, 3  
Release date: June 2016

\*Uploaded on June 3, 2016.