

## Signing of Japanese ODA Loan Agreements with India: Comprehensive support for further socioeconomic development in India over a wide range of fields

On March 31, the Japan International Cooperation Agency (JICA) signed loan agreements with the Government of India in Delhi to provide Japanese ODA loans of up to a total of 308.762 billion yen for eight projects.

Since the 2000s, there has been much attention on the economic growth trends of India, one of the so-called BRIC nations (Brazil, Russia, India and China). Although the global Great Recession that began in 2008 caused a deceleration of economic growth, since the establishment of the Modi administration in 2014 with its focus on economics, India's economy has grown rapidly at a rate exceeding seven percent.

This growth notwithstanding, comprehensive support is needed to improve the state of poverty in India, where about 30 percent of the world's poor live.

A summary of the eight Japanese ODA projects provided by the loan agreements is as follows:

- (1) North East Road Network Connectivity Improvement Project (Phase 1) (I) (loan amount: 67.17 billion yen)
- (2) Mumbai Trans-Harbour Link Project (I) (loan amount: 144.795 billion yen)
- (3) Delhi Eastern Peripheral Expressway Intelligent Transport Systems Installation Project (loan amount: 6.87 billion yen)
- (4) Rajasthan Water Sector Livelihood Improvement Project (I) (loan amount: 13.725 billion yen)
- (5) Chennai Metro Project (V) (loan amount: 33.321 billion yen)
- (6) Odisha Forestry Sector Development Project (Phase 2) (loan amount: 14.512 billion yen)
- (7) Nagaland Forest Management Project (loan amount: 6.224 billion yen)
- (8) Tamil Nadu Investment Promotion Program (Phase 2) (loan amount: 22.145 billion yen)

Details for the projects are provided below.

- (1) North East Road Network Connectivity Improvement Project (Phase 1) (I)

### (a) Objective and Summary

Including measures such as road widening, paving and slope stabilization, the project will improve National Highways 51 and 54 in North Eastern Region of India, which is adjacent to Myanmar, Bangladesh and Bhutan. These improvements will boost the level of connectivity between the target region and other areas inside and outside of India, thereby contributing to economic development in the region.

### (b) Background and Necessity

Along with a population increase and economic growth in recent years, there has been a growing demand for road improvements to handle domestic goods distribution, but road improvement and transportation efficiency measures tend to fall behind demand. National road improvements especially in mountainous areas lag behind improvements in flat regions for financial reasons and due to the technical challenges involved. The North Eastern Region, which is the target area of the project, in particular faces challenges such as a higher poverty rate than the average for India overall, steep terrain with hills and mountains that hinder road improvement efforts, a lack of road widening and slope stabilization measures, and broken pavement. The region also receives a large amount of rainfall, and landslides due to the steep terrain frequently make the roads impassable in the rainy season, hindering the flow of goods, and such road blockages are an impediment to economic development in the North Eastern Region. In addition to hindering the stable supply of goods, the delay in road improvements also impedes access to medical and educational facilities, and the existing national roads do not function adequately as a lifeline for the region. Improving the road network is a priority to ensure that local residents have a lifeline and for economic development.

### (c) Executing Agency

National Highways and Infrastructure Development Corporation Limited  
Address: Third Floor, PTI Building, 4 Parliament Street, New Delhi, 110001, India  
Phone: +91-11-2346-1600, fax: +91-11-2371-1103

### (d) Planned Implementation Schedule

1. Completion of project: June 2022 – when the roads are put into service
2. Issuing of letters of invitation for consulting services (including construction supervision): April 2017
3. Tender announcement of initial procurement package for international competitive bidding on project construction: Package 9: From Km 85.000 to Km 94.226, From Km 101.000 to Km 143.280, NH51

Planned release date: September 2017

- (2) Mumbai Trans-Harbour Link Project (I)

### (a) Objective and Summary

The project will construct a sea bridge (three lanes each way, total distance of approximately 22 kilometers) in the Mumbai Metropolitan Region (MMR), Maharashtra, in West India, over Mumbai Harbour to connect central Mumbai with Navi Mumbai on the opposing shore. The bridge will improve the connectivity to Navi Mumbai and other local areas where large-scale urban development is underway, thereby contributing to the economic development of the MMR.

### (b) Background and Necessity

The MMR of Maharashtra in West India is one of the largest metropolitan areas of the country with a population of about 18.41 million people (2011 national census). On the tip of a peninsula is Mumbai proper, the center of the MMR and one of the world's most densely populated cities. Because of the geographical and population constraints, traffic congestion is a severe impediment to MMR regional economic development. Given the scarcity of available land for development at the tip of the peninsula, the State Government of Maharashtra is promoting urban development in Navi Mumbai on the opposing coast by enticing industries to relocate there from Mumbai. Other urban development measures include expanding Jawaharlal Nehru Port, constructing Navi Mumbai International Airport and developing a special economic zone. These developments notwithstanding, the only transportation means between Mumbai and Navi Mumbai are a circuitous road around the bay and a single rail line, and it is therefore essential to improve the connectivity between the two urban areas for regional economic development in the MMR.

### (c) Executing Agency

Mumbai Metropolitan Region Development Authority  
Address: Bandra – Kurla Complex, Bandra (East), Mumbai, 400051, India  
Phone: +91-22-2659-0001~0004/2659-4000, fax: +91-22-2659-1264

### (d) Planned Implementation Schedule

1. Completion of project: June 2021 – when the facilities are put into service
2. Issuing of letters of invitation for consulting services (including construction supervision): Consultants have already been hired



signing ceremony

3. Tender announcement of initial procurement package for international competitive bidding on project construction: Package 1: Construction of a 10.380 km long bridge section (CH 0+000 – CH 10+380) across the Mumbai Bay including Sewri Interchange  
Planned release date: January 2017 (already released)

(3) Delhi Eastern Peripheral Expressway Intelligent Transport Systems Installation Project

(a) Objective and Summary

By installing intelligent traffic systems (ITS) on the Eastern Peripheral Expressway, currently under construction in the Delhi Metropolitan Area by the National Highways Authority of India, this project will create an efficient traffic system capable of handling the increasing need for transportation, thereby promoting economic development in the Delhi Metropolitan Area.

(b) Background and Necessity

Despite a high demand for the transportation of goods whose final destination is not inside Delhi, there are inadequate loop roads on the outskirts of the city. Large trucks and other freight vehicles therefore pour into Delhi, causing traffic congestion and environmental problems such as noise and air pollution, and the number of traffic accidents and other problems are on the rise. Although the National Highways Authority of India is advancing the construction of loop roads and other measures, including road widening projects, due to the high population concentration and restrictions on available land, such traffic and environmental problems will not likely be solved with merely the construction of roads. It is therefore necessary to increase the traffic efficiency with a greater road capacity through the use of an ITS which includes an automatic toll collection system to shorten toll booth lines, and a traffic control system to reduce accidents and shorten the time for handling accidents when they occur.

(c) Executing Agency

National Highways Authority of India  
Address: G-5&6, Sector-10, Dwarka, New Delhi, 110075, India  
Phone: +91-11-2507-4100/2507-4200, fax: +91-11-2507-6507

(d) Planned Implementation Schedule

1. Completion of project: April 2019 – when the facilities are put into service
2. Issuing of letters of invitation for consulting services (including construction supervision): April 2017
3. Tender announcement of initial procurement package for international competitive bidding on project construction: ITS  
Planned release date: April 2017

(4) Rajasthan Water Sector Livelihood Improvement Project (I)

(a) Objective and Summary

The project will rehabilitate deteriorating irrigation facilities and provide agricultural technical support based on the needs of domestic market with consideration for participation of both male and female farmers to improve water use efficiency and agricultural productivity, thereby improving farmers' livelihoods and promoting gender mainstreaming in the agriculture and irrigation sectors in Rajasthan State.

(b) Background and Necessity

Located in Northwest India, Rajasthan State (population: 68.55 million people) is poor in water resources, receiving only about half the rainfall (about 580 millimeters as a 100-year average, and as low as 320 millimeters in the arid region near the Thar Desert in the west part of Rajasthan) as the national average. There are currently more than 3,900 irrigation facilities for agricultural production installed in the state for efficient utilization of these limited water resources. However, many of those facilities have seepage and deterioration problems due to aging infrastructure and improper maintenance and management.

In rural areas of Rajasthan, not only men but women also play pivotal roles in performing agricultural work and maintaining irrigation facilities. Nevertheless, there are barriers to female farmers participating in training for the improvement of agricultural techniques and skills in maintaining irrigation facilities, and barriers also exist against female farmers taking part in the decision-making processes of water user associations.

It is therefore necessary to improve water use efficiency and agricultural productivity through the rehabilitation of existing irrigation facilities to improve water distribution, strengthen skills for the operation and maintenance of irrigation facilities, and provide agricultural technical support, while encouraging female farmers to participate in training and water user association activities.

(c) Executing Agency

Water Resources Department, Government of Rajasthan  
Address: Secretariat, Jaipur, Rajasthan, 302005, India  
Phone: +91-14-1222-7459, fax: +91-14-1222-7459

(d) Planned Implementation Schedule

1. Completion of project: March 2025 – with completion of all project activities
2. Issuing of letters of invitation for consulting services (including construction supervision): April 2017
3. Tender announcement of initial procurement package for international competitive bidding on project construction: Domestic procurement is scheduled but international competitive bidding for procurement is not planned for this project.

(5) Chennai Metro Project (V)

(a) Objective and Summary

The project will construct a mass rapid transit system in the Chennai Metropolitan Area, in Tamil Nadu State, in South India to meet the rising demand for transportation, thereby contributing to local economic development and an improved urban environment through mitigating traffic congestion and reducing air pollution, noise and the like.

(b) Background and Necessity

With 8.7 million people (2011), the Chennai Metropolitan Area is the fourth most populous metropolitan area after Mumbai, Delhi and Kolkata, and is the political and economic core for South India. Although Indian Railways operates Chennai Suburban Railway, which connects the city center of Chennai and the suburbs, and Chennai Metro, which serves Chennai and the surrounding areas, there is a continued reliance on roads for transportation because the transportation network was not formed to meet transportation needs and is inconvenient for travel within the city. Moreover, there has been rapid growth in the number of registered vehicles with the rising population and income in the Chennai Metropolitan Area, which, combined with a rapid dispersion and expansion of commercial and industrial districts, has resulted in severe traffic congestion, bringing the average driving speed within the city to a mere 17 kilometers per hour. As with other large cities in India, the economic loss caused by such congestion and the air and noise pollution caused by automobiles have become problems. As the population and the number of vehicles are expected to continue to increase with economic growth, providing a mass rapid transit system capable of meeting the transportation needs and reducing pollution is a priority.

(c) Executing Agency

Chennai Metro Rail Limited  
Address: Poonamallee High Road, Koyambedu, Chennai, 600107, India  
Phone: +91-44-2379-2149, fax: +91-44-2379-2200

(d) Planned Implementation Schedule

1. Completion of project: March 2020 – when all of the facilities are put into service
2. Issuing of letters of invitation for consulting services (including construction supervision): Consultants have already been hired
3. Tender announcement of initial procurement package for international competitive bidding on project construction: Already contracted

(6) Odisha Forestry Sector Development Project (Phase 2)

(a) Objective and Summary

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

(b) Background and Necessity

Located in East India, Odisha (population: 42 million people as of 2011) is a state with abundant forests that cover more than 50,000 square kilometers in area, 32.3 percent (2015) of the total land area in the state. Approximately 40 percent of the forest area is an open forest area [1] with sparse trees due to excess cutting, and the deteriorating quality of the forests is a challenge. An additional issue is that the poverty rate of Odisha is 32 percent (2011), greatly higher than the national rate of 22 percent (2011).

Taking these circumstances into account, JICA implemented the Orissa Forestry Sector Development Project (2006–2015) [2], which was funded with a Japanese ODA loan and which adopted a joint forest management approach that brought the government and residents together to manage forests. Focused primarily on the Joint Forest Management Committee, the project supported activities such as afforestation and livelihood improvements, and, as a result, sustainable improvements in forest resource use have been confirmed in the project target area. Nevertheless, a large portion of the forest composition remains woodlands, and the poverty among the Scheduled Castes and Scheduled Tribes that reside primarily in forest areas remains severe. A continued approach to these challenges is needed.

- 1: An open forest is defined as having a canopy density of branches and leaves to the covered ground when viewed from above of at least 10 percent and less than 40 percent.
- 2: When the project began in 2006, the name of the state was Orissa, but it was changed to Odisha in 2011.

(c) Executing Agencies

Forest and Environment Department, Government of Odisha

Odisha Forestry Sector Development Society

Address: SFTRI, Campus, At/P.O. Ghatikia, Bhubaneswar, Odisha, 751003, India

Phone: +91-67-4238-6084, fax: +91-67-4238-6085

Note: contact the Odisha Forestry Sector Development Society as noted above for inquiries about this project.

(d) Planned Implementation Schedule

1. Completion of project: March 2027 – with completion of all activities
2. Issuing of letters of invitation for consulting services (including project management): April 2017
3. Tender announcement of initial procurement package for international competitive bidding on project construction: International competitive bidding for construction is not planned for this project.

(7) Nagaland Forest Management Project

(a) Objective and Summary

The project will restore forests in the lands under shifting cultivation in Nagaland in Northeast India, and provide livelihoods means other than shifting cultivation for local residents to contribute to sustainable forest environment conservation and improved livelihoods of local residents.

(b) Background and Necessity

Nagaland, a state in Northeast India, has abundant forest resources covering more than 78.1 percent (2015) of the land area, and more than 70 percent of the population (1.98 million people) live in rural villages, leading lives dependant on agriculture and forest resources. In particular, lands that have been traditionally cultivated by shifting cultivation in the state are the primary form of agriculture, providing more than 60 percent of the food for the state.

Although the shifting cultivation conventionally left forestland fallow for 10 to 12 years, allowing the land to retain its fertility and its water, a drop in the volume of cultivated land due to a decrease in the agricultural working population in recent years combined with over cultivation making up for lowered crop productivity and other factors have shortened the fallow period, causing a drop in the fertility and water retention on agricultural land. This has resulted in a vicious cycle in which crop productivity drops and the scale of the swidden agriculture must then be increased as new farmland is sought, making forest conservation and ensuring a livelihood means other than swidden agriculture challenges.

(c) Executing Agency

Department of Environment, Forest and Climate Change, Government of Nagaland

Address: Upper Forest Colony, Kohima, Nagaland, 797001, India

Phone: +91-37-0224-4227, fax: +91-37-0224-4227

(d) Planned Implementation Schedule

1. Completion of project: March 2027 – with completion of all activities
2. Issuing of letters of invitation for consulting services (including project management): April 2017
3. Tender announcement of initial procurement package for international competitive bidding on project construction: International competitive bidding for construction is not planned for this project.

(8) Tamil Nadu Investment Promotion Program (Phase 2)

(a) Objective and Summary

The program will advance private investment, encourage the improvement of policies and systems for promoting industry and advance the quick realization of infrastructure, including roads, power and water services in Tamil Nadu in Southeast India. These initiatives will improve the investment environment in the state, contributing to increased foreign direct investment there.

(b) Background and Necessity

Located in the southeastern part of India, Tamil Nadu is on the sea lane to Southeast Asia, and due to the state's abundant labor force and coherent policies for attracting foreign capital, the number of Japanese and other foreign companies expanding to Tamil Nadu has been on the increase, particularly in the two-wheel and four-wheel vehicle industries. As the state is a target area for the Chennai Bangalore Industrial Corridor (an industrial cluster region conceived and planned by the Governments of Japan and India for general regional development through public-private cooperation) and a key area for industrial revitalization, there is a demand for investment environment improvements.

The State Government of Tamil Nadu is not only aggressively advancing investment enticements but also policies for improving the in-state investment environment. For infrastructure, 1.35 trillion rupees (approximately 10 percent of the state's gross domestic product) has been allocated, and various policies are being planned and implemented toward the utilization of private funds, including the establishment of an investment fund.

The latest business environment ranking (2016) from the Government of India places Tamil Nadu only in the middle of the country's states, and further improving the investment environment in terms of organization and infrastructure is a priority.

The program is positioned to further improve the investment environment and infrastructure developed through the Tamil Nadu Investment Promotion Program, funded by a Japanese ODA loan completed in March 2016, and it is expected that with these measures the efforts toward a better investment environment by the government of Tamil Nadu will move a step forward.

(c) Executing Agency

Finance Department, Government of Tamil Nadu

Address: Secretariat, Chennai, 600009, Tamil Nadu, India

Phone: + 91-44-2566-5566

(d) Planned Implementation Schedule

1. Completion of project: June 2019 – with completion of the loan disbursement

2. Issuing of letters of invitation for consulting services (including project supervision): No hiring of consultants is planned for this project.

3. Tender announcement of initial procurement package for international competitive bidding on project construction: International competitive bidding for construction is not planned for this project.

Project title	Amount (million yen)	Annual interest rate (%)		Repayment period (years)	Grace period (years)	Procurement
		Project	Consulting services			
North East Road Network Connectivity Improvement Project (Phase 1) (I)	67,170	1.4	0.01	30	10	General untied
Mumbai Trans Harbor Link Project (I)	144,795	Yen LIBOR + 10 bp	0.01	30	10	General untied
Delhi Eastern Peripheral Expressway Intelligent Transport Systems Installation Project	6,870	1.4	0.01	30	10	General untied
Rajasthan Water Sector Livelihood Improvement Project (I)	13,725	0.7	0.01	15	5	General untied
Chennai Metro Project (V)	33,321	1.4	0.01	30	10	General untied
Odisha Forestry Sector Development Project (Phase 2)	14,512	0.3	0.01	40	10	General untied
Nagaland Forest Management Project	6,224	0.3	0.01	40	10	General untied
Tamil Nadu Investment Promotion Program (Phase 2)	22,145	1.4	N/A	30	10	General untied
Total	308,762					