

## Signing of Japanese ODA Loan Agreements with the Government of India

–Utilizing Japanese expertise on Railways, climate change counter measures and biodiversity conservation–

1. Today, the Japan International Cooperation Agency (JICA) signed agreements with the Government of India to provide loans of up to a total of 134.288 billion yen for assistance for two Japanese ODA loan projects in India.

2. India has been implementing economic reforms since 1991 and enjoying economic growth with an average annual growth rate of 6-7 percent since 2003. In the 11th Five Year Plan (2007-2011), the Government of India has set "faster and inclusive growth" as a goal, aiming to achieve the expansion of economy and inclusive growth which benefits all citizens. As one of the rapidly growing BRICs Countries, India is a focus of attention for continuously achieving high economic growth, which reached an annual growth of 8.4 percent in fiscal 2010. At the same time, however, India became the third largest contributor to CO2 emissions in 2009 and begun to show a presence at such international conference as the 17th session of the Conference of the Parties (COP 17)<sup>[1]</sup> of the United Nations Framework Convention on Climate Change.

3. At the Japan-India summit meeting held in December 2011, Japanese Prime Minister Yoshihiko Noda and Indian Prime Minister Manmohan Singh made a joint declaration to strengthen economic relations and cooperation between both countries. Prime Minister Noda announced a total of 4.5 billion dollars in support for the Delhi-Mumbai Industrial Corridor (DMIC) projects, and Prime Minister Singh expressed his welcome to the high interest on the Japanese side in developing India's high-speed railway system. The Japanese ODA loan agreements signed today will provide a total of 134.288 billion yen for two Japanese ODA loan projects as announced by Prime Minister Noda to Prime Minister Singh at the summit talks.

4. Features of the Japanese ODA loans are described below.

(1) Contribution to sharing Japanese knowledge on railway.

In continuation with the December 2011 Japan-India summit, Mr. Takeshi Maeda, Japanese Minister of Land, Infrastructure, Transport and Tourism, visited India in January 2012 to hold talks with Mr. Shri Dinesh Trivedi, Indian Minister of Railways, and progress was made in the utilization of Japanese railway technology in the overseas, including an agreement to establish a high-level committee to accelerate bilateral cooperation in the field of high-speed railway system.

In line with high level diplomatic actions by the Japanese Government, JICA is providing comprehensive support with Japan's advanced railway technology and expertise. Support that JICA has provided in the past includes Mass Rapid Transport (MRT) construction in Delhi, Bangalore, Kolkata and Chennai, as well as the construction of the Dedicated Freight Corridor connecting Delhi and Mumbai. Additionally, Japan has provided training in Japan and has dispatched experts to transfer Japanese expertise in such areas as safety measures at construction sites, rolling stock maintenance and operation management capacity. These efforts have resulted in cultural aspects unique to Japan such as strict work scheduling and safety measures taking root in India. JICA has continuously supported the railway sector in India, a recent example of which was a basic survey and exchange of knowledge on high-speed railway systems.

In Delhi, JICA has supported improvement of transport networks, providing concessional finance to construct MRT network which extends from the city center through the implementation of "Delhi Mass Rapid Transport System Project" and "Delhi Mass Rapid Transport System Project Phase 2." In "Delhi Mass Rapid Transport System Project Phase 3", supported by a Japanese ODA loan signed today, the network of the Delhi Metro will be expanded through the construction of the inner and outer ring corridor lines. When all of the lines targeted in the phase 3 open for service, the transportation network will cover the majority of the Delhi metropolitan area with some 11.17 million commuters and students.

(2) Contribution to climate change measures and biodiversity conservation

The rolling stock that will be delivered under "Delhi Mass Rapid Transport System Project Phase 3" is planned to incorporate a regenerative braking system which is also used in Japan as energy-saving technology in continuation from the previous phase 2. With that technology, the train motor is used as a generator when brakes are applied, converting kinetic energy to electric power, which is expected to save approximately 33 percent in power compared to conventional trains. As with the previous phases, this project is planned to be registered by the United Nations Clean Development Mechanism (CDM) Executive Board as a CDM project with a regenerative braking system.

Furthermore, "West Bengal Forest and Biodiversity Conservation Project" will improve the forest ecosystem and conserve biodiversity there through afforestation, the enhancement of forest management, the consolidation of management system of protected areas, improvements in the habitat of wildlife and other measures through a Joint Forest Management approach. Since the afforestation efforts will help sequester greenhouse gas emissions while contributing to land conservation from disasters, this project helps alleviate climate change while adapting to it. The 11th Conference of the Parties (COP 11) to the Convention on Biological Diversity is scheduled to be held in Hyderabad, India in October 2012, where it is expected that the focus will be on the measures to conserve biodiversity and the outcome of Japanese support in India.

5. The year 2012 is the 60th anniversary of the establishment of diplomatic relations between Japan and India. More than 800 Japanese companies have bases in India, twice the number four years ago, showing how the relationship between Japan and India has dramatically strengthened in recent years. JICA will continue to contribute to economic growth and poverty reduction in India with JICA's various type of ODA such as ODA loans, technical cooperation and grant aid.

### Related Link

➤ [Project Map \(PDF/271KB\)](#)

## Reference

### 1. Terms and Amounts of Loan

Project title	Amount (million yen)	Annual interest rate (%)		Repayment (years)	Grace Period (years)	Procurement
		Project	Consulting services			
Delhi Mass Rapid Transport System Project Phase 3	127,917	1.40	0.01	30	10	Untied
West Bengal Forest and Biodiversity Conservation Project	6,371	0.65*	0.01	40	10	

\* In order to actively assist with efforts on environmental issues in developing countries, concessional loan terms apply to global environmental projects (energy conservation, forest conservation, and alternative energy):

Standard: Interest rate of 0.65 percent per year with a repayment period of 40 years and a grace period of 10 years

Option 1: Interest rate of 0.55 percent per year with a repayment period of 30 years and a grace period of 10 years

Option 2: Interest rate of 0.50 percent per year with a repayment period of 20 years and a grace period of 6 years

Option 3: Interest rate of 0.40 percent per year with a repayment period of 15 years and a grace period of 5 years



Signing ceremony

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## 2. Project Summaries

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### (1) Delhi Mass Rapid Transport System Project Phase 3

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#### Background and Necessity

As India has been rapidly urbanized in recent years, and while the number of registered automobiles and bicycles has quickly risen, while public transportation infrastructure has not kept pace. In particular, traffic congestion accompanying an increased demand for road transportation has become a serious issue in large cities such as Delhi, Kolkata and Chennai, and the resulting economic loss and the detrimental health effects due to air pollution, noise and other automobile pollution are becoming more serious. A public transportation system therefore must be built to alleviate the traffic congestion and improve the urban environment. To address this issue, in the 11th Five Year Plan, the Government of India has put forth recommendations to create a high-speed transportation system in cities with populations of at least four million from the perspectives of safety, energy efficiency and social environmental preservation.

In the metropolitan area of Delhi, the population has rapidly grown from 9.42 million in 1991 to 16.75 million in 2011 (provisional estimate), and is forecasted to rise to 24.32 million by 2021. With that growth has come a rapid rise in the number of registered automobiles, and the average driving speed on main thoroughfares in the city is 15 kilometers per hour, an indication of the serious nature of traffic congestion there. Expanding the road network is difficult due to insufficient land, making it difficult to increase the transportation capacity of buses and other existing forms of public transportation. To alleviate traffic congestion and combat automobile pollution, the Government of Delhi has constructed a network of the mass rapid transit system through "Delhi Mass Rapid Transport System Project" and "Delhi Mass Rapid Transport System Project Phase 2" as a main pillar of its urban transportation policies and urban environmental policies.

#### Objective and Summary

Under "Delhi Mass Rapid Transport System Project Phase 3", a mass rapid transit system extending 103 kilometers will be constructed in the Delhi metropolitan area of India. This transportation system will meet an increasing transportation demand, and the project aims to develop regional economy and improve the urban environment while mitigating climate change by alleviating traffic congestion and decreasing traffic pollution.

The loan funds will be allocated to civil works, electrical and communication-related construction, rolling stock procurement and consulting services.

#### Executing Agency

Delhi Metro Rail Corporation Limited  
Address: Metro Bhawan, 13, Fire Brigade Lane, Barakhamba Road, New Delhi-110001, India  
Phone: +91 (11) 2341-7910, fax: +91 (11) 2341-8416

#### Planned Implementation Schedule

- (i) Completion of project: October 2020 – with completion of rolling stock delivery
- (ii) Consulting services including construction monitoring: currently under consultant selection process
- (iii) Tender announcement of initial procurement package for international competitive bidding on project construction:  
Procurement package title: Rolling Stock Package (RS-10)  
Release date: Released

### (2) West Bengal Forest and Biodiversity Conservation Project

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#### Background and Necessity

Located in the eastern part of India, West Bengal State has the second highest population density among the states of India. Overuse 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. In West Bengal State, the national and state governments have carried out Joint Forestry Management and other forest preservation measures. 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. Most of the poor continue to depend on forest resources for their daily lives. Appropriate forest management while carrying out community development is needed.

From the Himalaya highlands in the north, designated as a biodiversity hotspot by the Conservation International, as an area with exceptional levels of plant endemism and serious levels of habitat loss, West Bengal State stretches to the shores of Bay of Bengal in the south with diverse geographical features. West Bengal State has abundant biodiversity with 25 protected areas such as national parks and sanctuaries. In particular, West Bengal State is home to Indian elephants, Bengal tigers and other endangered species, making it a critical area in terms of protecting rare species. However, man-animal conflict with elephants and tigers have become a serious issue in recent years, making it necessary to fortify the system for preventing man-animal conflicts.

#### Objective and Summary

Under "West Bengal Forest and Biodiversity Conservation 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. As a result, appropriate forest preservation and biodiversity conservation activities will be implemented in a sustainable manner, which will result in environment conservation, harmonized socioeconomic development and climate change mitigation and adaptation. The loan funds will be allocated to afforestation activities, biodiversity conservation activities, community development with livelihood improvement activities, institutional capacity development of the forest department and consulting services.

#### Executing Agency

West Bengal Forest Department, Government of West Bengal  
Address: Aranya Bhawan, LA-10A, Block III West Bengal, Kolkata 700098, West Bengal, India  
Phone: +91 (33) 2335-7751

#### Planned Implementation Schedule

- (i) Completion of project: March 2020 – with completion of all activities
- (ii) Issuing of letters of invitation for consulting services (including construction monitoring): April 2012
- (iii) Tender announcement of initial procurement package for international competitive bidding on project construction: There will be no procurement in this project through international competitive bidding, but procurement for subsequent project implementation through local competitive bidding is expected.

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#### Note

[1] Held in Durban, Republic of South Africa from November 28 to December 11, 2011.

# 【Project Map】



**Delhi Mass Rapid Transport  
System Project Phase 3**

**West Bengal Forest and  
Biodiversity Conservation  
Project**