

JICA Signed Japanese ODA Loan Agreements with India in Second Half of Fiscal 2008

-Supporting Faster and Inclusive Growth-

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1. On March 31, JICA President Sadako Ogata signed an agreement with the Indian government to provide Japanese ODA loans of up to just under 137 billion yen for the latter half of fiscal 2008 for four projects for India. Starting last year, the approval process for Japanese ODA Loans was changed from annually to bi-annually.
 2. India's economy has achieved impressive results since economic reforms began in 1991, reaching an annual growth rate of five to eight percent that year alone. Since 2005, the rate has jumped even further, hitting a high of over nine percent, and bringing attention to India as one of the fast developing BRIC countries, a group that also includes Brazil, Russia and China. While the Indian government has made it a policy to use this newfound economic growth as a tool for alleviating poverty, the northeastern states and other poverty-stricken regions are still lagging behind in development, with per capita income less than 40 percent the national average. In light of these facts, the Indian government made "Faster and Inclusive Growth" the central theme of its Eleventh Five Year Plan, running from April 2007 through March 2012. Policy and projects are being implemented that enlarge the overall economic pie through faster growth and ensure that such growth is all-inclusive, thereby addressing inter-regional and interethnic inequalities in prosperity and living standards. The central government has specifically been emphasizing urban and municipality infrastructure development centered on major cities while providing funding to encourage investment in regional city infrastructures. Under the banner of the Jawaharlal Nehru National Urban Renewal Mission (JNNURM), this funding is premised on the condition that reforms are carried out toward developing the organizational capacity of regional governments.
 3. These Japanese ODA loans are being provided for four projects to address the circumstances in India described above. One is a project to improve urban traffic in the National Capital Territory of Delhi, a metropolis encompassing the capital city of New Delhi, while the other three involve construction and renovation of the waterworks in regional cities, including work in the impoverished northeastern state of Assam. The details of each project are as follows.

(1) Renovation and improvement of the urban traffic system and environment in Delhi

India's metropolis of Delhi suffers from excessive traffic congestion and some of the worst urban air pollution in the world. The objective of this project is to alleviate these problems through the construction of a subway and other urban rail lines. A new rail route will be provided as part of Phase 2 of the Delhi Mass Rapid Transport System Project, Phase 1 of which was funded by previous Japanese ODA loans. Upon opening, the new Phase 2 route will supplement the rail completed during Phase 1 in November 2006 and accommodate about three million passengers, exceeding the riding capacity of the Toei Subway which is operated by Tokyo Metropolitan Government. Construction under this project will further utilize universal designs that take into account the needs of the aged and disabled. Facilities will include elevators, tactile tiles for the blind and secure wheelchair spaces.

(2) Improvement of regional living standards through waterworks renovation

Potable water is absolutely essential for health and sanitary living, and therefore the Indian government's present Eleventh Five Year Plan highlights universal access to potable water that can be sustained as one of its objectives and gives special attention to regions where water is contaminated by fluoride and chemicals. Water supply facilities have not kept up with demand, which has rapidly increased with population growth and economic development, making safe and reliable waterworks a critical issue in improving the living environment in local communities. Hence, under the **Hogenakkal Water Supply and Fluorosis Mitigation Project (Phase 2)** and the **Kerala Water Supply Project (III)**, new waterworks facilities utilizing surface water are being built to provide safe and reliable water supply services to cities and regions facing water scarcity and poor quality groundwater. Under the **Guwahati Water Supply Project** and the **Kerala Water Supply Project (III)**, the growing demand for water will be met by renovating waterworks facilities and improving the organizational capacity of the agencies in charge of the waterworks.

4. To ensure that projects supported by these Japanese ODA loans produce long-term benefits, a variety of aid programs are being adopted, including a technical cooperation plan. The primary aid instruments are as follows.

Under the **Delhi Mass Rapid Transport System Project Phase 2 (IV)**, HIV/AIDS awareness education and prevention activities are being provided to the many migrant workers employed by the project contractors to reduce the risk of HIV/AIDS infection. To further improve the operation and risk management capabilities of the Delhi Metro Rail Corporation (DMRC) for future high-density transportation, Tokyo Metro conducted an on-site survey and provided training in Japan in 2006. The experience of Tokyo Metro in operation and risk management was used as a basis for a technical cooperation program beginning in February 2008, in which specialists were dispatched to provide maintenance and management for DMRC's subway rolling stock and improve the safety of their operations.

The **Hogenakkal Water Supply and Fluorosis Mitigation Project (Phase 2)** continues the work approved under Phase 1 in fiscal 2007, cooperating with local specialists and foundations in areas where fluoride was detected to inform doctors and educators about fluorosis. Efforts are being made to locate fluorosis patients, and provide guidance to change their water source and modify their diet to limit the progress of the disease. Special consideration is being given under the project to scheduled tribes, scheduled castes, women and other poor and disadvantaged populations. Such consideration includes water tariff system affordable even to the poor and a community-based fee collection system.

5. The new JICA is striving to reach an unprecedented level of integrated operation through the three aid instruments of technical cooperation, Japanese ODA loan and grant aid. This support is being developed in India to solve the critical issues of sustained economic growth through economic infrastructure improvements, economic growth that includes employment, poverty alleviation and environmental and climate change countermeasures. The support also represents a course for advancing dialogue with the Indian government on policies to manage financial turmoil and providing faster and more effective aid that will impact the whole of India.

(For further details, click [here](#).)

The Map of Japanese ODA Loan projects ([PDF/998KB](#))

Reference

Loan Amount and Terms

Project Name	Amount (Mil. Yen)	Interest Rate (% / year)		Repayment /Grace Period (years)	Terms of Procurement
		Loan	Consulting services		
Delhi Mass Rapid Transport System Project Phase 2 (IV)	77,753	1.20	0.01	30/10	General Untied
Guwahati Water Supply Project	29,453	1.20	0.01	30/10	General Untied
Hogenakkal Water Supply and Fluorosis Mitigation Project (Phase 2)	17,095	1.20	0.01	30/10	General Untied
Kerala Water Supply Project (III)	12,727	1.20	0.01	30/10	General Untied
Total	137,028				

(1) Delhi Mass Rapid Transport System Project Phase 2 (IV)

(a) Background and Necessity

In recent years, India's major cities have seen a dramatic growth in population, and the use of personal cars has spread rapidly. Together with traffic congestion, environmental problems brought about by car exhaust fumes are becoming a serious concern. The metropolis of Delhi has exploded with private cars as its population doubled to 14 million people over the last 20 years. The number of registered vehicles went from 520 thousand in 1980 to 4.17 million in 2004. This is partly because Delhi lacks both short-distance rail lines linking its suburbs and urban center, and rail lines in its downtown, leaving buses and private cars as the only means of transport. The result is chronic congestion[1] and cars traveling at an average speed of 13 kilometers per hour through the metropolis. This is further exacerbated by severe air pollution caused by the low-grade fuel and old model engines used in cars and buses[2].

It is therefore critical that a large-scale rapid transport system be established to relieve Delhi's traffic congestion, in addition to decreasing air pollution from exhaust gases, and further reducing greenhouse gas emissions by providing a substitute for automobile transportation.

(b) Objective and Summary

Under the Delhi Mass Rapid Transport System Project, more than 400 kilometers of subway as well as elevated and surface rail is being constructed to encourage economic growth and protect the environment by reducing traffic congestion, automobile exhaust gases and greenhouse gas emissions. The three routes constructed during Phase 1 of this project opened in November 2006, providing 65 kilometers of new rail line. Under Phase 2, an additional 80 kilometers will be provided in a total of six lines, three of which are extensions. Another benefit of the project will be tourism. Phase 1 provided access to Red Fort, and the completion of Phase 2 will do the same for the Qutb Minar, a registered World Heritage Site.

It is said that India's construction sector also underwent a cultural transformation under Phase 1 of this project. Each and every worker was required to wear a safety helmet and safety shoes, a practice previously not established at Indian construction sites. Also, awareness of safety and efficiency were fully brought to workers' attentions through thorough requirements of maintaining order and cleanliness on construction sites. Similar measures will be carried out in Phase 2.

The Japanese ODA loan will be appropriated to items including subway civil works, subway 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) 2341-7921

(2) Guwahati Water Supply Project

(a) Background and Necessity

Guwahati, in the state of Assam, is the largest city in northeast India as well as a major traffic and distribution center. Unfortunately, water supply service reaches only about 30 percent of the population, while aging facilities and high leakage rates limit water supply to an average of two to three hours per day. The gap between water supply and demand is especially severe when one considers that water usage is expected to rise with expected population growth, thus requiring the immediate establishment of new waterworks and services.

(b) Objective and Summary

Under this project, Guwahati's south-central and northern district waterworks facilities are being renovated and the executing agency is undergoing institutional capacity development. The objective of the project is to provide safe and reliable water supply services that can meet rapidly growing demand, and help improve the living environment of local residents, numbering 580 thousand as of 2008.

Loan funds are being allocated to civil works, procurement of goods and services, institutional capacity development of the executing agency and consulting services.

Executing agency: Guwahati Metropolitan Development Authority

Address: Bhangagarh, Guwahati-5, Assam, India

Phone: +91 (361) 2529650

Fax: +91 (361) 2529991

(3) Hogenakkal Water Supply and Fluorosis Mitigation Project (Phase 2)

(a) Background and Necessity

This project is targeting the districts of Dharmapuri and Krishnagiri in northwest Tamil Nadu State in southern India. Water demand has been increasing due to population growth, but the region's annual rainfall is only 815 millimeters, less than both the national average of 1,250 millimeters and the state average of 958 millimeters. Furthermore, there are no surface water supplies that can be used year-round. This has resulted in the overpumping groundwater supplies, which dry out, with 12 out of 18 districts within the project area facing chronic water shortages and water access limited to an average of one hour per day. In addition, these districts contain the bedrock that forms the Deccan Plateau, where 30 to 60 percent of water sources are contaminated by fluorine, a substance harmful to humans. Local communities suffer greatly from fluorosis adverse effects on teeth, bones, internal organs and fetuses due to the use of contaminated groundwater.

Therefore, there is an urgent need to provide safe surface water from the Cauvery River located 45 kilometers from the districts to solve the problems of water shortages and fluoride contamination.

(b) Objective and Summary

The districts of Dharmapuri and Krishnagiri in Tamil Nadu have the worst water shortages in the state, as well as serious fluorine contamination[3] of groundwater supplies. Under this project, new waterworks facilities will be constructed that use water drawn from the Cauvery River to provide safe and reliable service to the 2.2 million people in the districts. The objective is to provide water supply services that can handle rapidly growing demand and reduce the health risk posed by fluorosis.

Through this project, doctors and educators are being trained about fluorosis in cooperation with experts and organizations knowledgeable about fluorosis. Fluorosis patients are being located, instructed to change their water source and educated in dietary habits that will stop the progress of the fluorosis. These efforts represent the first time that comprehensive action has been taken to address India's groundwater fluorine problem. Plans are also in the works to cooperate with non-governmental organizations to enhance the capabilities of local governments. As of 2007, 22.387 billion in Japanese ODA loan has been extended for this project.

Loan funds are being allocated for civil works and consulting services.

Executing agency: Tamil Nadu Water Supply and Drainage Board
Address: Kamarajar Salai, Chepauk, Chennai 600005, Tamil Nadu, India
Phone: +91 (44) 2841-6420
Fax: +91 (44) 2854-8623

(4) Kerala Water Supply Project (III)

(a) Background and Necessity

Kerala is a state located in the south of India with a population of 32 million. As of 2006, water supply services had penetrated just 65 percent of the region, far below the global average and one of the lowest of Indian states. Two cities in the project area have waterworks that are failing to keep pace with urbanization and population growth, resulting in serious water shortages, while three regional cities additionally face saltwater contamination of groundwater supply and thus require urgent development of water supply systems.

(b) Objective and Summary

This project will facilitate the augmentation and rehabilitation of water supply facilities in Kerala State, targeting cities faced with serious water shortages due to population growth and those further troubled by saltwater-contaminated groundwater. The project's objective is to provide reliable water supply services that will meet the region's increasing water needs. This is expected to greatly improve the living environment for some 3.4 million people in the region. Japanese ODA loans totaling 12 billion and 32.78 billion yen have already been provided for this project in 1996 and 2006, respectively.

Loan funds are being allocated to civil works, procurement of goods and services, institutional capacity development of the executing agency and consulting services.

Executing agency: Kerala Water Authority
Address: "Jala Bhavan" Vellayambalam, Thiruvananthapuram 695033, Kerala, India
Phone: +91-0471-328654
Fax: +91 (0471) 324903

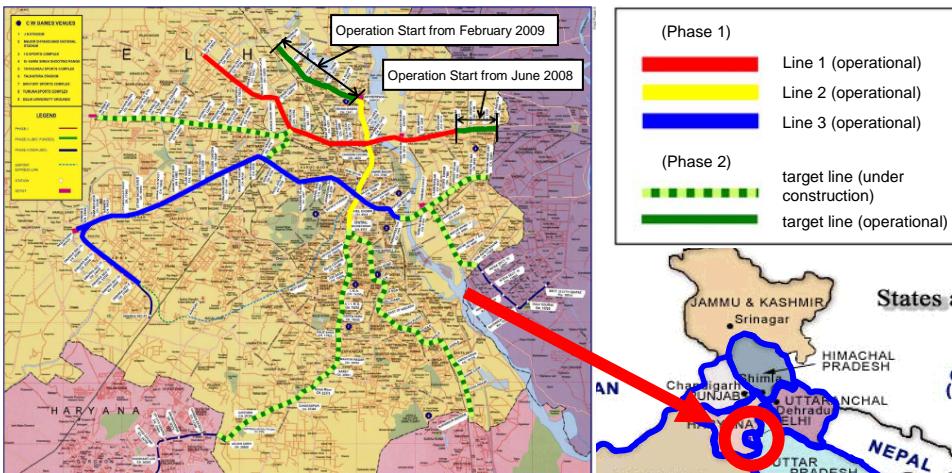
[1] In 2001, 12.7 percent of Tokyo commuters travelled by bus, 15.9 percent by private car and 52.1 percent by rail, compared to 60.0 percent by bus, 39.5 percent by private car and 0.5 percent by rail in Delhi.

[2] The annual average concentration of airborne particulates is the highest of the world's major cities, greatly surpassing even Beijing and Bangkok. The average concentration in Tokyo is 42 micrograms per cubic meter, compared to 177 in Delhi. This exceeds India's domestic standard of 140 micrograms per cubic meter.

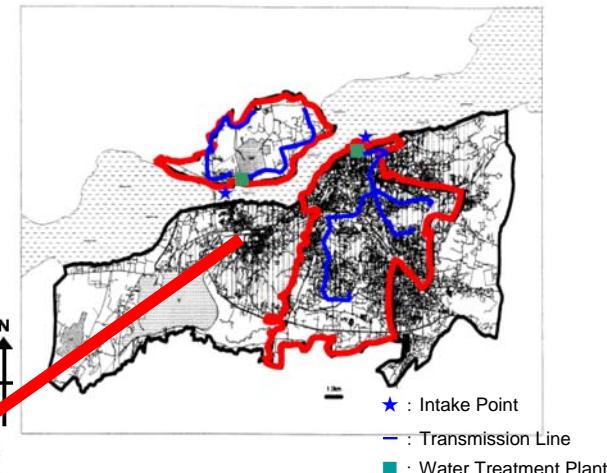
[3] 9.0 milligrams per liter of fluoride has been detected in Dharmapuri District, far exceeding the 1.5 milligrams per liter stipulated by World Health Organization guidelines.

Project Areas For the Second Half of Fiscal 2008 Japanese ODA Loans to India

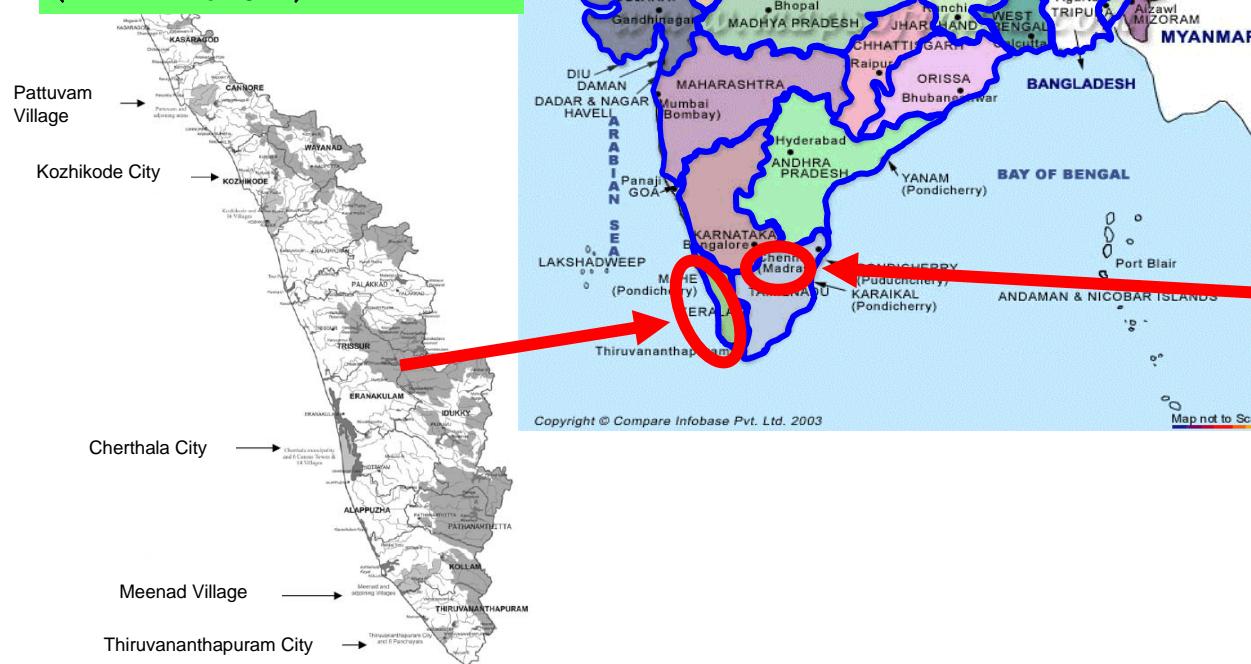
**Delhi Mass Rapid Transport System Project Phase 2 (IV)
(77.753 Billion JPY)**



**Guwahati Water Supply Project
(29.453 Billion JPY)**



**Kerala Water Supply Project (III)
(12.727 Billion JPY)**



Hogenakkal Water Supply and Fluorosis Mitigation Project (17.095 Billion JPY)

